

**THE DETERMINANTS OF
FOREIGN DIRECT
INVESTMENT
IN DEVELOPING ECONOMIES**

The Determinants of Foreign Direct
Investment in Developing Economies

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THE DETERMINANTS OF FOREIGN DIRECT INVESTMENT IN DEVELOPING ECONOMIES

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PREFACIO

A pesar de encontrarnos en un mundo globalizado con alta movilidad financiera, los países en vías de desarrollo han atraído tradicionalmente un porcentaje relativamente pequeño de los flujos internacionales de capital. Si bien muchas economías en desarrollo, como Turquía o los países latinoamericanos, liberalizaron su cuenta de capital en los años noventa, bajo la promesa de que eso contribuiría en gran medida a un desarrollo más rápido, en muchos casos esto generó inestabilidad macroeconómica, y no siempre fue suficiente para incrementar de manera notable la llegada de capital extranjero.

Dentro de los diferentes flujos de capital (inversiones en cartera, en deuda

FOREWORD

In spite of the fact that we are living in an increasingly globalized world with high levels of capital mobility, developing countries have traditionally attracted a relatively small percentage of international capital flows. Whether it is true that numerous developing economies, such as Turkey or Latin American countries, liberalized capital account in the nineties, under the promise that it would contribute to a faster economic development, in many cases this generated macroeconomic instability, and was not always sufficient to noticeably increase foreign capital inflows.

Among the different types of capital flows (portfolio equity, short term debt, etc.), foreign direct investment (FDI) is considered to have a more stable nature.

a corto plazo...), se considera que la inversión extranjera directa (IED) tiene una naturaleza más estable. Mientras que las inversiones en cartera tienen a menudo propósitos de diversificación de riesgos o especulación, se mantiene que la IED son inversiones de largo plazo motivadas por la necesidad de acceder a un mercado de destino (IED horizontal), establecer una plataforma productiva para exportar a terceros países (IED vertical), o explotar recursos estratégicos (como materias primas, una tecnología determinada, etc.). Además de inversiones duraderas que generan riqueza y empleo, la IED teóricamente conlleva otros beneficios, como puede ser el incremento de la productividad a través de procesos de aprendizaje “learning by doing” y transmisión de conocimiento, a medida que empleados que trabajan para la multinacional extranjera se incorporan a otras empresas locales. También, de acuerdo con la teoría de la organización industrial, se generan un sin número de externalidades positivas, incluyendo encadenamientos hacia atrás (proveedores locales) y hacia

While 'portfolio investment usually have speculation or risk diversification purposes, it is argued that FDI implies long term investment motivated by the aim of accessing a destination market (horizontal FDI), establish a production platform to export to third countries (vertical FDI), or exploit strategic resources (such as raw materials or a certain technology). In addition to being long termed investments that generate wealth and employment, FDI theoretically brings other benefits to economic agents in the host economy, such as productivity increases derived from learning by doing processes and diffusion of knowledge, as employees working in the foreign subsidiary eventually move to other local companies. Moreover, according to the theory of industrial organization, a number of positive externalities are generated by FDI, including backward and forward linkages, demonstration effects and technology transfers.

It is also worth mentioning that FDI does not always bring the expected

delante (empresas que incorporan a su proceso productivo insumos intermedios comprados a la multinacional ,con mayor calidad y/o menor coste), efectos de “demostración”, transferencia de tecnología, etc.

Cabe aclarar que no siempre la IED conlleva los beneficios esperados, que existen diferencias en cuanto a las externalidades generadas dependiendo del tipo de FDI y el sector y país de destino, y que no siempre las autoridades en países en desarrollo cuentan con el poder de negociación suficiente para sacar el máximo partido a la inversión extranjera. Pero, a pesar de esto, la proliferación en las últimas dos décadas de tratados de libre comercio que incluyen cláusulas sobre inversión extranjera y protección intelectual, la explosión del número de agencias de atracción de inversiones, o las reformas conducentes a la reducción de costes salariales, dan una idea clara de que hay una auténtica competición a nivel global y regional por conseguir la implantación de empresas multinacionales.

benefits. There are differences in the externalities achieved depending on the abovementioned types of FDI, the sector of the investment and the destination country. In addition, authorities in developing countries do not always count with sufficient bargaining power to make the most of foreign investments. In any case, the proliferation of free trade agreements including investment clauses and intellectual protection clauses we have witnessed in the past two decades, the explosion in the number of investment attraction agencies, or the observed reforms conducting to reduced labor costs, led us to conclude that there is clearly a global (and also regional) contest to attract multinational companies.

In this sense, the main purpose of this thesis is identifying what are the determinants of foreign direct investment, as well as understanding to which extent FDI can be influenced by public policies. In a few words, we try to contrast the existing theories discussing the determinants of FDI at the light of the recent experience in some emerging economies. This way, apart from

En este sentido, el propósito principal de esta tesis es identificar cuáles son los factores determinantes de la inversión extranjera directa, así como entender hasta qué punto pueden ser influidos por políticas públicas. Se procura, en definitiva, contrastar las diferentes teorías existentes sobre los determinantes de la IED a la luz de la experiencia reciente en varias economías emergentes. Con esto, además de contribuir a la literatura existente sobre los determinantes de la IED con un enfoque eminentemente pragmático y de economía aplicada, centrado en economías en desarrollo, pretendemos informar a los decisores de política en dichos países sobre cómo conseguir un mayor atractivo de cara al inversor extranjero. Los artículos que aquí se presentan también son útiles para empresarios y gerentes que tengan la intención de invertir en países en desarrollo.

Más concretamente, se trata de responder a las preguntas de investigación siguientes: (1) ¿hasta qué punto un mejor manejo macroeconómico ha ayudado

contributing to the existing literature with an eminently pragmatic applied economics approach, focused in developing economies, we try to inform policy makers in those economies about the ways to increase their appeal to the foreign investors. The papers included in this volume are also useful for entrepreneurs and managers that are willing to invest in developing economies.

More concretely, we try to respond to the following research questions: (1) to which extent a better macroeconomic management has helped certain developing economies attracting FDI?; are economic growth rates, inflation, current account deficits or debt levels influential?; (2) what is the role of enhanced and more transparent institutions in FDI attraction?; to which extent transparency and accountability, rule of law or investment protection help increasing FDI inflows?; (3) what are the factors determining the degree of foreign participation in a subsidiary?; here the idea is to better understand why some multinationals opt for joint ventures when entering a developing country,

a ciertas economías en desarrollo a atraer inversión extranjera directa?; ¿hasta qué punto son factores influyentes las tasas de crecimiento, la inflación, los déficits de cuenta corriente o los niveles de deuda?; (2) ¿qué papel juegan mejores y más transparentes instituciones en la atracción de IED?; ¿en qué medida influyen los niveles de rendición de cuentas y transparencia, estado de derecho o protección del inversor extranjero en un país de cara a recibir IED?; (3) ¿cuáles son los factores que determinan el nivel de participación extranjera en una filial?; se trata aquí de entender por qué unas multinacionales optan por establecer joint ventures en países en desarrollo, mientras que otras prefieren máximo nivel de control sobre su filial; por último (4), se discute el efecto que los tratados de integración regional tienen sobre los flujos de IED hacia los estados miembros.

Cada artículo de los incluidos en esta memoria de tesis enfrenta una o varias de estas preguntas de investigación partiendo de una rigurosa revisión de la

whereas others prefer to retain the maximum degree of control over the subsidiary; (4) lastly, we discuss the effect of regional integration agreements on FDI flows to member countries.

Each of the articles included in this thesis addresses one or several of these research questions. As a departure point, we perform a rigorous literature review for each of these questions, whose consolidated findings have been summarized in the conclusion. This has allowed us to identify a series of research methods that are suitable to test the different hypotheses. Nevertheless, as we were looking at these issues in the case of developing economies, a series of limitations emerged; for instance, in the case of Latin America we do not count with a bilateral FDI flow matrix, which prevent us from using gravity models (commonly applied to analyze the potential of export or import flows). We have finally opted for applying three different but complementary research methods. In chapter 2 we employ a series of cross-country regressions under fixed effects,

literatura, cuya discusión se presenta de manera consolidada en el capítulo de conclusiones. Esto nos ha permitido identificar una serie de métodos de investigación adecuados para tratar de probar las diferentes hipótesis que aquí se plantean. No obstante, el hecho de trabajar con países en desarrollo ha puesto en evidencia algunas limitaciones de datos; por ejemplo, el hecho de no contar con una matriz de flujos bilaterales de IED en Latinoamérica nos ha impedido la aplicación de modelos gravitacionales (comúnmente utilizados para analizar el potencial de los flujos de exportación o importación). Finalmente, hemos optado por aplicar tres enfoques metodológicos diferentes pero complementarios. En el capítulo 2 se emplean regresiones multi-país con técnicas de efectos fijos, efectos aleatorios y Método de Momentos Generalizados para analizar un panel de datos a nivel “macro” para 19 países latinoamericanos, entre 1990 y 2010. En el capítulo 3 se parte de observaciones a nivel “micro”, en el marco de las Encuestas de Empresas del Banco Mundial, y se aplican una serie de regresiones

random effects and Generalized Method of Moments, to analyze a panel of macroeconomic data for 19 Latin American countries between 1990 and 2010. In chapter 3 we depart from observations at the micro level, in the context of World Bank Enterprise Surveys, and we apply binary logit regressions to two cross sections of data (for different developing countries in 2005-2006 and 2009-2010); the objective is to identify the determinants of the degree of foreign ownership in the FDI subsidiary. Finally, in chapter 4 we complement the previous econometric analyses with a case study approach: drawing from our reading of the economic and institutional context, a review of regional trade agreements, and a geopolitical discussion around energy, we try to assess to which extent the relation with the European Union has increased FDI levels in Turkey.

In sum, departing always from a literature review and from the selection of suitable and complementary research methods, we have elaborated an

binarias logit a dos secciones transversales (observaciones en 2005-2006 y 2009-2010); el objetivo es identificar los factores determinantes del nivel de participación foráneo en la subsidiaria (IED). Finalmente, en el capítulo 4 se complementan los análisis econométricos con un enfoque de estudio de caso: a partir de una lectura del contexto económico e institucional, una revisión de los acuerdos de integración regional, y una discusión geopolítica alrededor del tema de la energía, se discute hasta qué punto la relación con la Unión Europea ha incrementado los niveles de IED en Turquía.

En definitiva, partiendo siempre de una revisión de la literatura existente, y de la selección de métodos de investigación complementarios, se han elaborado un capítulo introductorio y tres artículos independientes pero íntimamente relacionados, que tienen como hilo conductor único la identificación de los factores determinantes de la inversión extranjera directa en países en vías de desarrollo.

introductory chapter and three independent but intimately related papers around the common story of the identification of factors influencing foreign direct investment in developing economies.

Chapter 1 presents the wider and more general context that functions as the framework for this investigation: a globalized world in which developed countries have traditionally attracted most international capital flows, whereas developing countries compete among themselves to improve their appeal to the foreign investors. Whether in the aftermath of the global economic crisis of 2008 it is observed how certain emerging economies (Brazil, China, Russia, Indonesia, etc.) have climbed already to the top in the FDI recipients rating, poorer and smaller developing economies, in general, continue to struggle when trying to attract foreign investors. In this context, we present some of the alternative explanations to this paradox, as it is the case of differences of human capital between the “North” and the “South”, market imperfections,

El capítulo primero presenta el contexto más amplio y general que sirve de marco para la investigación: un mundo más globalizado en el que los países avanzados han atraído tradicionalmente la mayor parte de los flujos internacionales de capital, mientras los países en desarrollo compiten entre sí por mejorar su atractivo de cara al inversor extranjero. Si bien es cierto que desde la crisis internacional del 2008 se observa cómo algunas economías emergentes (Brasil, China, Rusia, Indonesia, etc.) se han colocado ya entre los países del mundo que reciben mayores flujos de IED, otras economías en desarrollo de menor tamaño continúan teniendo problemas para atraer al inversor extranjero. En este caso, presentamos algunas de las explicaciones alternativas que se han dado a esta paradoja, como es el caso de diferencias en el capital humano entre el “Norte” y el “Sur”, imperfecciones de mercado, limitaciones institucionales en los países menos desarrollados, o la existencia de controles de capital y otro tipo de trabas. La revisión general de la literatura

institutional limitations in least developed economies, or the existence of capital controls and other kind of barriers. The review of the literature on capital flows we perform in this chapter leads to the intuition that some of these limitations are also influential in the concrete case of FDI. As abovementioned, within capital flows, FDI seems to contribute more substantially to economic development than short term flows, as it is alleged to bring positive spillovers over the economy. The question is, thus, what are the most influential factors when trying to attract FDI.

In the second chapter, with title *Do changes in the rules of the game affect FDI flows in Latin America?*, we depart from this premise of identifying the determinants of FDI. From a “macro” (country level) perspective, we try to identify what are the macroeconomic and institutional factors that have influenced FDI flows to Latin America in 1990-2010. For this purpose, we undertake a series of panel data econometric exercises for this region. Results

sobre los flujos de capital que hacemos en este capítulo nos deja intuir que algunos de estos factores potencialmente limitantes pueden ser igualmente relevantes en el caso de la IED. Como ya se ha mencionado, dentro de los diferentes flujos de capital, la inversión extranjera directa parece contribuir en mayor medida al desarrollo económico que los capitales de corto plazo, por presentar una serie de externalidades positivas. La cuestión está en identificar cuáles son los factores más influyentes a la hora de atraer IED.

En el segundo capítulo, con título *Do changes in the rules of the game affect FDI flows in Latin America?*, partimos de esta premisa de identificar los determinantes de la IED. Desde una perspectiva “macro”, tratamos de identificar cuáles son los factores macroeconómicos e institucionales que han influido la atracción de inversión extranjera directa por parte de los países latinoamericanos en el período 1990-2010. Para ello, hacemos una serie de análisis econométricos con datos de panel para la región. Los resultados señalan que aquellos países

point that those countries with the lowest short term debt levels (respect to reserves), and those economies with larger current account deficits tend to attract more FDI; on the other hand, inflation and exchange rate variability are not significant determinants of FDI. There is also evidence that institutional improvements matter, although certain dimensions such as corruption levels or the quality of bureaucracy do not seem to have influenced the decisions taken by foreign investors when choosing a host country in the region. At the same time, it is possible to observe that those countries in which the investment protection framework has become more instable over the past decade, and those in which the implementation and execution of law has been deteriorated, have lost the favor of foreign investors, receiving less FDI inflows than in the nineties. This is the case of Argentina, Bolivia, Ecuador and Venezuela. On the other hand, Peru or Costa Rica have been able to noticeably increase investment climate, and to attain a higher degree of political stability, which allowed then to attract

con menores niveles de deuda a corto plazo respecto a reservas en moneda extranjera, y aquellas economías con mayores déficits por cuenta corriente tienden a atraer más IED; en cambio, la inflación o la variabilidad en el tipo de cambio no han sido determinantes significativos de IED. También hay evidencia de que las mejoras institucionales son importantes, si bien dimensiones como los niveles de corrupción o la independencia de los funcionarios públicos no parecen haber influido las decisiones de inversores extranjeros en la región, a la hora de elegir país de destino. En cambio, sí que es posible observar que aquellos países en los que el marco de protección al inversor se ha hecho más inestable a lo largo de la pasada década, y en los que se ha deteriorado la implementación y ejecución de la ley, han perdido el favor de los inversores extranjeros, recibiendo menores flujos relativos de IED que en los años noventa. Este es el caso de Argentina, Bolivia, Ecuador y Venezuela. Por otro lado, países como Perú o Costa Rica han sido capaces de mejorar notablemente el

annual FDI inflows averaging more than 5 per cent of GDP in 2000-2010. This paper has been recently published at the *European Journal of Political Economy*.

From the country level approach with macroeconomic and institutional variables, in chapter 3 we descend to investment decisions at the microeconomic level, using a firm level approach. This chapter, with title *Do foreign multinationals prefer joint or solo ventures in Latin America?*, focuses in analyzing the determinants of the degree of participation of foreign multinationals in their subsidiaries, when they decide to invest abroad. In this case we observe how international investment decisions do not only have to do with perceived risks or institutions in the host country, but also with the characteristics of the multinational and the expansion strategy she has adopted. For instance, companies that own specific technologies or have a license to exploit certain patents, in general, prefer to maintain a degree of participation in the social capital of the new subsidiary of 100%, to better defend their intellectual property. Entering a new market

clima institucional y alcanzar un mayor grado de estabilidad política, lo que les ha llevado a atraer flujos de inversión extranjera anuales por encima del 5 por ciento del PIB en 2000-2010. Este artículo ha sido recientemente publicado en el *European Journal of Political Economy*.

Del enfoque a nivel país, con variables macroeconómicas e institucionales, bajamos en el tercer capítulo a las decisiones de inversión a nivel microeconómico, desde una perspectiva de empresa. Este capítulo, con título *Do foreign multinationals prefer joint or solo ventures in Latin America?*, se centra en estudiar los factores de los que depende el nivel de participación en la empresa subsidiaria que decide tener una empresa multinacional cuando invierte en el extranjero. En este caso observamos cómo las decisiones internacionales de inversión no sólo tienen que ver con el riesgo percibido o las instituciones en el país de destino, sino también con las características de la multinacional y la estrategia de expansión que ésta adopta. Por ejemplo, las empresas que cuentan

with a local partner could somehow imply ceding the exclusiveness over that technology, with the partner eventually becoming a competitors. We also find evidence that international investors and managers usually prefer a high degree of participation in the subsidiary when they have decided that they will get the inputs for the production process from third countries different to the host (in which the subsidiary has been established), as well as when the objective of the investment is to create a platform aimed at exporting to third countries; this guarantees them a greater degree of flexibility when choosing their suppliers and distribution channels abroad. Conversely, when the subsidiary with foreign capital plans to buy inputs in the host country and to sell most of its production in that market, it usually adopts a joint venture form, given that counting with a local partner may be key when identifying suppliers and clients in the domestic market.

Chapter 4, is titled *How regional integration and transnational energy networks*

con tecnologías específicas o licencias de explotación de ciertas patentes, por lo general, prefieren participar al 100% en el capital social de la nueva filial para proteger su propiedad intelectual. Entrar en un nuevo mercado de la mano del socio local podría resultar en perder la exclusividad sobre dicha tecnología, con el socio eventualmente convirtiéndose en competidor. También encontramos evidencia de que los inversores internacionales y gerentes suelen preferir un alto grado de participación en la filial cuando tienen previsto que ésta se aprovisione de insumos para el proceso productivo en terceros países distintos del de implantación, así como cuando el objetivo de la inversión es crear una plataforma para exportar a terceros países; esto les garantiza mayor flexibilidad a la hora de seleccionar sus proveedores y canales de distribución. Por el contrario, cuando la subsidiaria de capital extranjero compra insumos en el país de implantación y dirige la mayor parte de sus ventas al territorio nacional, normalmente se establece en forma de joint venture, dado que contar

have boosted FDI in Turkey (and may cease to do so). On this occasion, drawing from a qualitative case study approach, we analyze how regional integration processes may help increasing the level of foreign investment attraction. More concretely, this chapter discusses why Turkey was not able to significantly increase FDI inflows during the 90s and early 2000s, in spite of the signature of the Customs Union Agreement for manufactured products with the European Union (EU) in 1996. In turn, we argue that the boost on FDI inflows to Turkey observed from 2005 onwards was caused by the signaling effect of the beginning of official EU accession conversations that year. Contrary to the Customs Union Agreement, in this case regional integration was influential for attracting FDI because accession negotiations entailed reforms in a number of chapters of the so called *acquis communautaire*, which international investors understand is going to result in a significant improvement in business climate. We also discuss how diplomatic relations, geopolitical decisions and strategic industries such

con un socio local puede ser clave de cara a identificar proveedores y clientes.

El cuarto capítulo se titula *How regional integration and transnational energy networks have boosted FDI in Turkey (and may cease to do so)*. En esta ocasión, desde un punto de vista de estudio de caso a nivel cualitativo, se analiza cómo los procesos de integración regional pueden ayudar a incrementar la atracción de inversión extranjera. Concretamente, el capítulo discute por qué Turquía fue incapaz de incrementar significativamente sus flujos de IED durante los noventa y los primeros años de la década pasada, incluso a pesar de la firma del tratado de unión aduanera para manufacturas con la Unión Europea en 1996. En cambio, sostenemos que el fuerte incremento en los flujos de inversión a Turquía a partir del año 2005 se debe al efecto señalizador que tuvo el inicio de las conversaciones oficiales de adhesión a la Unión Europea ese mismo año. El motivo es que las negociaciones de adhesión implican reformas en un buen número de capítulos del *acquis communautaire*, que los inversores extranjeros

as the energy sector, directly affect FDI. The slowdown in the progress made by Turkey in EU accession, and the fact that the Nabucco natural gas corridor (which would link Azerbaijan and Central Europe, through Anatolia) is no longer a priority in EU energy policy, may result in European investors in the energy field losing appetite for investing in Turkey. In this case, Turkey may need to recur to searching for new allies and investors (for example, in Russia).

Finally, the conclusions chapter offers a consolidated reading of the different papers integrating this thesis. It synthesizes in a single piece the findings of the literature review, the identification of influential variables, methodological decisions, results and policy implications. The conclusions chapter may be also somehow considered an executive summary of this thesis, and discusses in a greater level of detail the issues highlighted in this Foreword.

In sum, this thesis comprises an introductory framework discussion on

entienden conllevará una mejora significativa del clima de negocios. También discutimos cómo en sectores estratégicos como el energético, las relaciones diplomáticas y las decisiones geopolíticas afectan directamente a la IED. La desaceleración del proceso de acceso a la Unión Europea (UE) de Turquía, así como el hecho de que el corredor de gas Nabucco (que uniría Azerbaiyán y Centro Europa, cruzando Anatolia) ha dejado de ser prioritario para la política energética de la UE, puede resultar en un menor apetito de los inversores europeos en el ámbito energético por invertir en Turquía, que es probable que tenga que buscar nuevos aliados e inversores (por ejemplo, en Rusia).

Finalmente, el capítulo de conclusiones ofrece una lectura conjunta de los artículos que integran esta tesis, sintetizando en una única pieza los hallazgos en la revisión de la literatura e identificación de variables influyentes, las decisiones metodológicas, los resultados, y las implicaciones pragmáticas. Dicho capítulo puede ser también considerado una especie de resumen ejecutivo de la tesis, y

capital flows and three complementary chapters featuring different approaches and methodologies (macro-quantitative, micro-quantitative, and case study-qualitative). They have the common aim of discovering the reader, the academician, the policy maker, or the entrepreneur, which are the factors that influence foreign direct investment decisions in developing economies. We try to contrast existing theories about the determinants of FDI at the light of the recent experience in several developing countries. This way, our work acquires an eminently empirical dimension, trying at the same time to generate a pragmatic debate around the different policy implications and options that are available for governments in emerging markets.



discute en mayor detalle los aspectos resaltados en este Prefacio.

En definitiva, esta memoria de tesis presenta un marco introductorio y tres análisis complementarios con diferente enfoque y metodología (macro, micro, caso de estudio), con el objetivo común de descubrir al lector, académico, formulador de política pública o empresario, los diversos factores que influyen en las decisiones de inversión extranjera directa en países en vías de desarrollo. Se trata de contrastar las diferentes teorías existentes sobre los determinantes de la IED a la luz de la experiencia reciente en varias economías en desarrollo. De este modo, el trabajo adquiere una dimensión eminente empírica, que trata de generar un debate muy pragmático alrededor de las diferentes implicaciones y opciones de política a disposición de los gobiernos de economías emergentes.



Tabla 0-1. Cuadro sinóptico resumen del contenido de los capítulos, métodos empleados, hallazgos, y preguntas de investigación a las que alude cada capítulo.

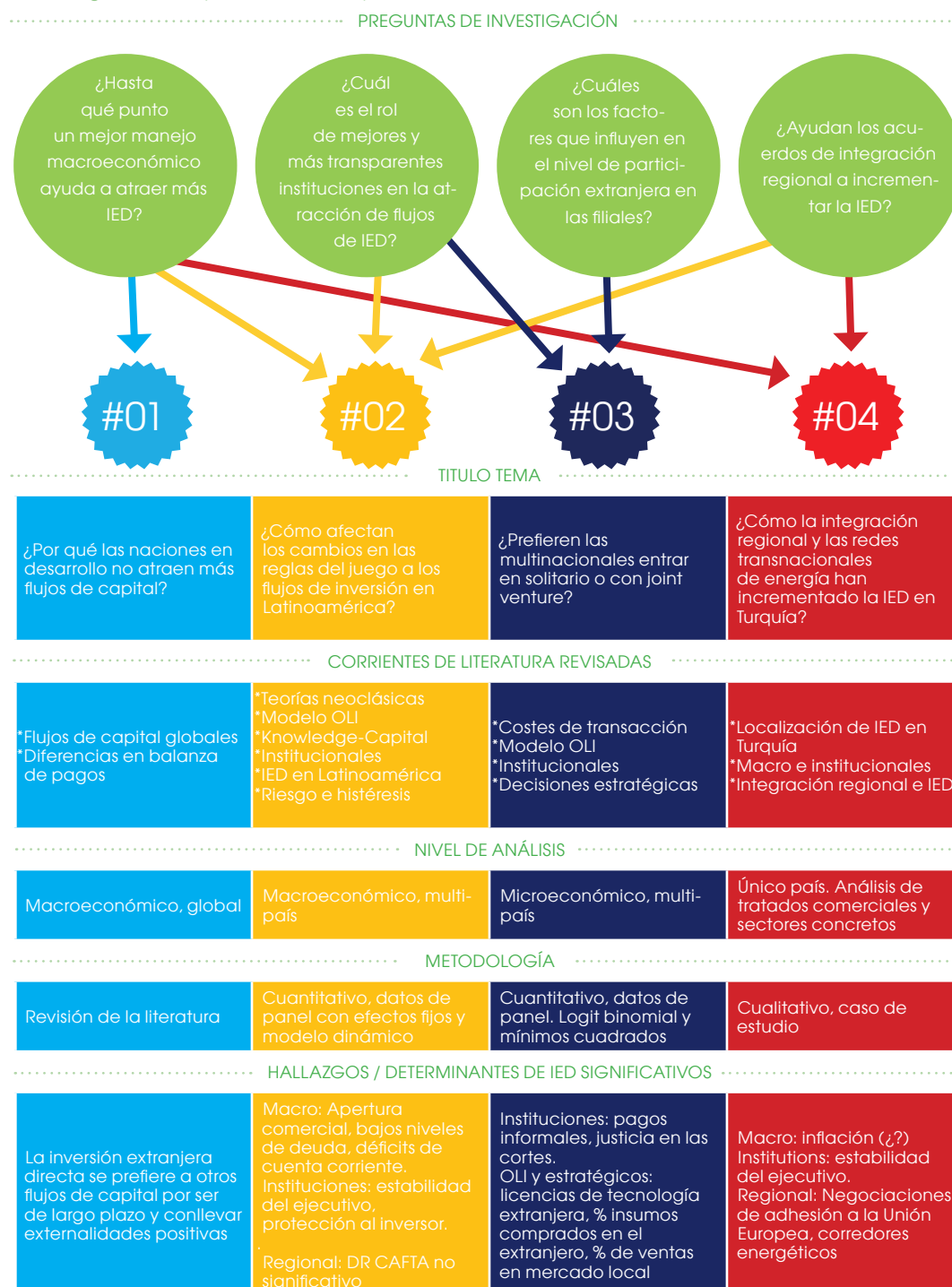
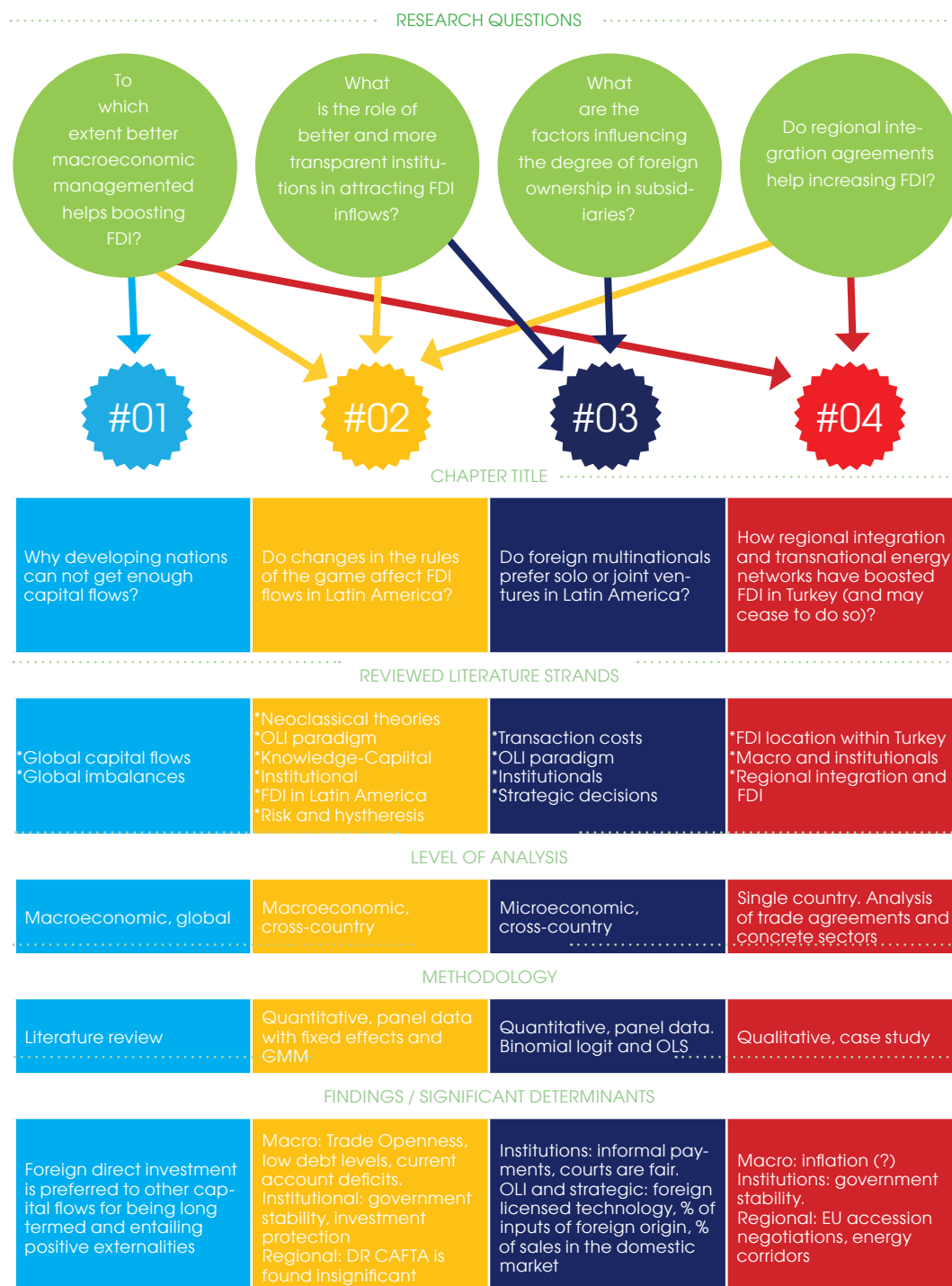


Table 0-1. Summary of content, applied methodology, findings, and research questions we refer to in each chapter.



CHAPTER #01

WHY DEVELOPING NATIONS CAN NOT GET ENOUGH CAPITAL FLOWS

A GENERAL COMMENT ON EXISTING LITERATURE ON INTERNATIONAL CAPITAL FLOWS, AT THE LIGHT OF EVENTS IN THE AFTERMATH OF THE GLOBAL CRISIS

1.1. Motivation: limited attraction of capital flows by developing nations

In spite of being compelled during the 1990s to open capital account and increase their degree of integration in global financial markets, as that was alleged to enhance economic growth, developing nations continue to attract just a small portion of international capital flows. Over the past decade, developed nations still got more than 70% of global foreign direct investment (FDI) inflows, and more than 80% of global portfolio equity, confirming the so-called Lucas (1990) Paradox: flows are in general North-North or even South-North instead of being North-South, as envisaged in neoclassical trade theory. Even if in the aftermath of the global crisis of 2008 capital flowing to emerging economies has expanded very noticeably, and South-South flows have

started to appear, most of it has concentrated in the large so-called BRIC's economies (UNCTAD, 2013), whereas lower middle income and low income economies of smaller size continue struggling to attract FDI. This may be partly explained by the fact that developing nations have less sophisticated and less depth financial markets, and have thus more difficulties to appeal to foreign investors (*original sin hypothesis*). At the same time, the flows developing nations were attracting often had a short term speculative nature that increased output volatility and have led to sudden stops (for example, Turkey and Argentina in 1994-1995 and 2001).

Departing from this initial puzzle, and drawing from recent literature, we aim at providing a general characterization of capital flows in the new global context, starting with the fall of Lehman Brothers in 2008 and the economic slowdown in developed nations. One of the lessons emerging from the literature review is that capital account liberalization, if not accompanied by other measures, does not necessarily result in deeper and more efficient domestic financial institutions, much larger attraction of international capital flows, and faster economic growth (see Prasad and Rajan, 2008). A second finding is that there is evidence that capital flow composition matters: Foreign Direct Investment is widely regarded as a type of flows that encompass a series of positive externalities (knowledge spillovers, backward and forward linkages), and contribute to economic development due to its long term nature (Markusen and Venables, 1999); in turn, short termed debt flows may enlarge macroeconomic instability.

The rest of this introductory chapter discusses the direction of global capital flows (section 1.2), to which extent have global imbalances contributed to the unexpected capital flows patterns (1.3), the distinction between FDI and portfolio flows (1.4), and the competition on foreign direct investment attraction (1.5). Our ultimate motivation is to flesh out a general view on global capital flows, as well as to provide the reader with an intuition on why

nations are especially keen on attracting foreign direct investment, even when this may imply a race to the bottom in labor, social or environmental standards (Hecock and Jepsen, 2013; Olney, 2013).

1.2. Financial openness and global capital flows

In an era of unstoppable globalisation, the intensity of the debate between supporters and detractors of financial liberalisation has escalated. Neoclassical economic theory stands that -with globally integrated financial markets- capital would flow from relatively rich countries to those with low capital per labour ratios. However, as Lucas (1990) observed, in reality capital flows are following a “North-North” pattern rather than a “North-South” one.

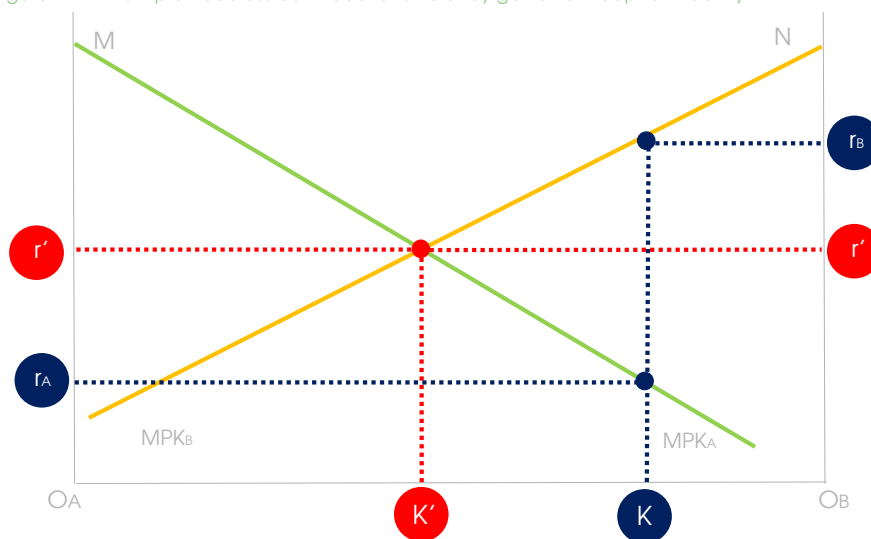
It is widely believed that an economy well integrated in the global financial system will enjoy potentially higher growth and investment (taking advantage from foreign funds), improvements in its financial institutions and better macroeconomic management due to market discipline. On the other hand, however, open economies may suffer instability and crisis, loss of competitiveness due to excess inflows leading to exchange rate overvaluation (Dutch Disease, as defined by Corden and Neary, 1982), constraints in their currency policies and loss of certain degree of fiscal autonomy due to tax competition to prevent capital flight. In the current context of blurry economic prospects and financial turmoil, the consideration of capital controls and Tobin taxes to regulate capital flows and prevent speculative investment is again at the forefront of the international debate.

Based on the compelling arguments in favour of financial liberalisation, such as the attraction of FDI inflows (Desai et al., 2006) or institutional improvement, many developing nations have adopted capital account openness and other measures seeking the attraction of international flows in order

to enhance development prospects. In the neoclassical model, the Law of Diminishing Returns to Capital implies that new investment should take place in countries that have relatively low capital-to-labour ratios (see Markusen et al, 1995).

Figure 1.2-1. *A simple neoclassical model of efficiency gains from capital mobility*, illustrates a setting in which the total amount of capital in the system (horizontal axis) is distributed between two economies (*A* and *B*). Initially (at *K*), most of the capital is located in developed country *A* (represented by the distance between O_A and *K*), whereas developing country *B* counts with a smaller capital stock (O_B and *K*). As the latter is likely to present higher risk for investors, returns to capital are higher ($r_B > r_A$). According to the theory, with time, capital will start moving to country *B*, until the marginal prices of capital in *A* and *B* are equalized in position *E*, where returns to capital are at level r' . In this final equilibrium country *B* would finally enjoy a slightly larger share of total capital than country *A*.

Figure 1.2-1. A simple neoclassical model of efficiency gains from capital mobility.



Source: Adapted from Markusen et al (1995)

In this setting, we should have witnessed how capital, widely accumulated in developed countries, started to massively flow to developing nations. However, as it is widely known, Lucas (1990) noted that in reality just a small proportion of international capital flows have traditionally been flowing to the South.

Prashad et al (2006) underline that, despite the upsurge of cross-border finance and investment in the past two decades, capital flows to developing countries are still far from the predicted theoretical levels. In fact, some emerging markets such as China or India are exporting capital to rich economies. By looking at Figure 1.2-2. it is possible to observe that developed nations continue to hold the largest share of global FDI inflows, averaging 77% of total flows in 2000-2008. FDI flows to upper middle income countries were relatively low in the eighties (11.3% of total flows, on average), escalated in 1991-1997 (23.9%), declined during the Asian crisis (14.3% in 1998-2000) and expanded again during the last decade. Low income countries have just attracted 0.5% of yearly total flows, on average.

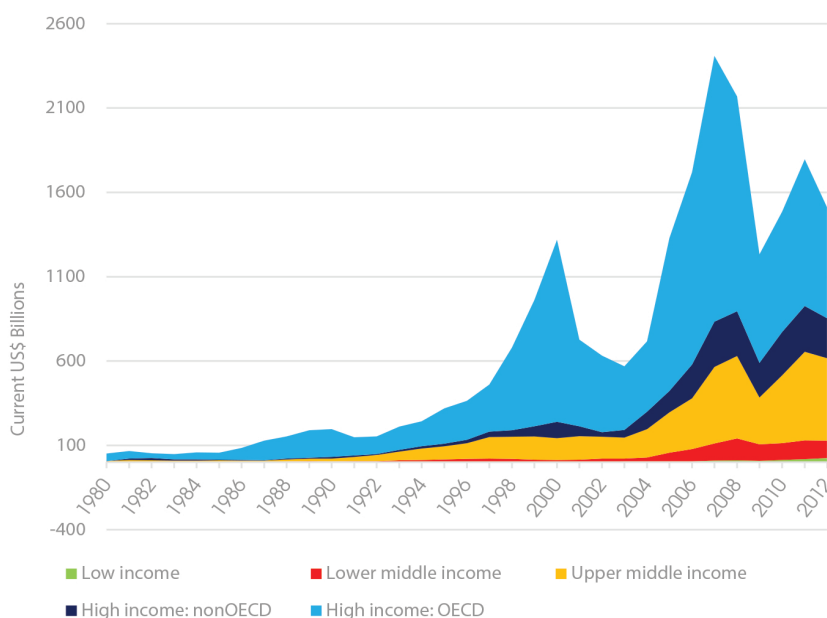
In 2009-2012, global FDI flows have overall significantly contracted, and are far from the historical yearly levels attained prior to the 2008 crisis. At the same time, it is possible to observe some changes in the direction of flows, as foreign direct investment to developed nations decreased to around 63% of total flows, whereas flows directed to upper middle income countries have expanded from 18.8% of total flows in 2007 to 32.4% in 2012. Basically means that the so-called BRIC's⁴ are reaping their chance to enhance foreign direct investment in a new global order full of challenges but also full of opportunities for emerging nations. According to UNCTAD (2013:xiv), in 2012 eleven developing economies were already in the top twenty in terms of investment attraction (including China, Brazil, Russia, India and Indonesia). At the same time, most low income and lower middle income countries continue struggling to attract foreign investors.

By, region, in 2001-2011, European Union member countries have attracted

4. BRIC's refers to large emerging markets such as Brazil, Russia, China, and India. Some authors include also Indonesia and Turkey under this denomination.

on average 46% yearly global FDI inflows, whereas 16.5% went to the United States and Canada. East Asia and Pacific countries have averaged 16.9%, Latin America 7.7%, Middle East and North Africa 3.7%, South Saharan Africa 1.6% and South Asia 1.1%.

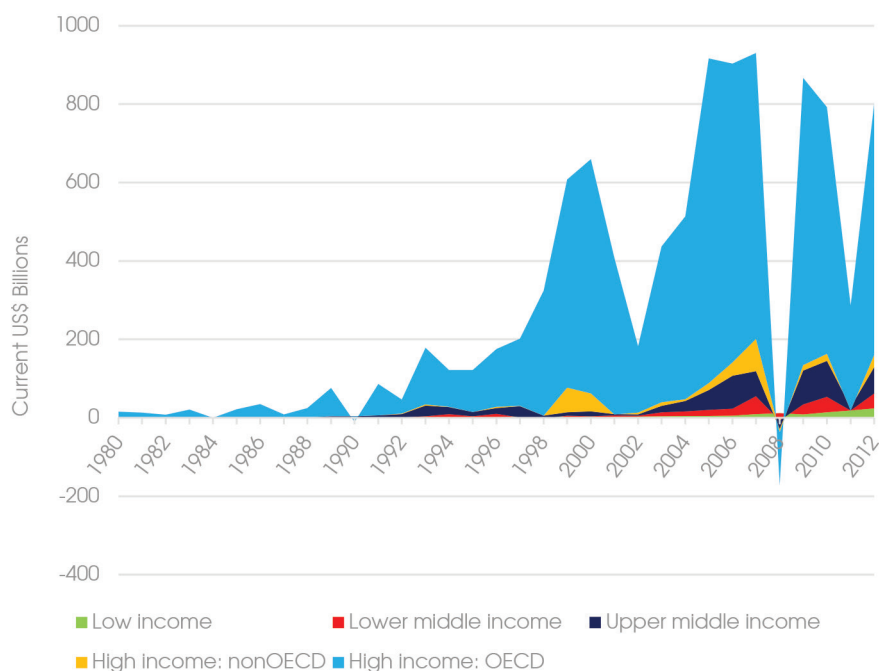
Figure 1.2-2. Yearly FDI inflows by country income level.



Source: Global Development Finance BOP figures, the World Bank

In the case of portfolio equity, the share of flows to high income countries is even larger, above 80% of total flows. Flows to upper middle income countries (especially to the BRIC's) have largely expanded since the Leman and Brothers fall, in 2008, but remain small compared to those received by developed nations. Flows to lower middle income and low income countries are very modest, as in most of the cases the depth of their financial markets is just shallow.

Figure 1.2-3. Net portfolio equity inflows by country income level.



Source: Global Development Finance BOP figures, the World Bank

We may ask why, overall, capital has not been flowing in a larger proportion to poor countries despite their efforts to liberalise the financial sector. It is possible to find a bunch of dissimilar explanations that we try to summarize here.

Lucas (1990) elaborates some hypothesis to explain why capital is not flowing to poor countries despite the observed large return differentials with rich ones. The different quality of human capital and the existence of market imperfections (sovereign risk, difficulties to enforce international borrowing contracts, asymmetric information, etc.) could be the cause for this to happen.

Another view stands that the existence of faulty institutions and financial sector impediments in poor countries is the reason why they are not able

to attract large capital flows. This view is intimately related to the New Institutional Economics. It argues that, in order to fully benefit from financial globalization, countries must first undertake reforms aimed at achieving stable property rights, rule of law and reduced corruption (Alfaro et al, 2005). There is also some evidence that FDI from developed countries is more risk-averse than that from developing economies, thus not reaching relatively risky or complicated environments (Masron et al, 2012). Interestingly, this approach contrasts with the traditional neoclassical argument that financial deepening and improved institutions would be the natural consequence of liberalisation. In the new consensus, institutional reforms seem to be a pre-requisite to achieve successful liberalisation.

Related to this institutional view, Eichengreen and Hausmann (1999), argue that the Lucas Paradox is well explained by the *original sin* hypothesis: more capital does not flow from rich to poor countries because it can only flow in a form that generates currency mismatches (see Jeanne and Zettlemeyer, 2005) which discourage lending and heighten the fragility of the financial system.

A third explanation is that developing countries maintain some capital controls fearing that liberalisation may bring increased economic volatility. The argument against financial market liberalisation is based in the bad experiences of some emerging economies in Latin America and Asia during the 1990s. Some critics of the risks entailed by capital account openness defend the need to control potentially damaging short term flows (Stiglitz, 2000; Aizenman and Pinto, 2011). Singh (2002) argues that even long term foreign direct investment may cause financial fragility.

Kose et al (2006) review large strands of literature and reject this last view, arguing that there is little evidence that enhanced capital mobility increases volatility and vulnerability to crises. On the other hand, they acknowledge that there does not seem to be systematic evidence of a positive contribution of higher financial openness levels to economic growth either. They argue

that *de facto* measures of capital openness (the sum of gross stocks of foreign assets and liabilities as a ratio to GDP) are preferred to the more traditional *de jure* measures, as the latter are <<*based on various restrictions associated with foreign exchange transactions that may not necessarily impede capital flows*>>. A good example is China, where, in spite of the fact that capital restrictions are still in place, large and volatile capital flows could not be avoided. When comparing 1980-84 with 2000-04, it is possible to observe that, while emerging economies have not increased *de jure* openness substantially, *de facto* integration of these economies in global capital markets has largely increased, even when their levels of openness still remain significantly below those of developed nations.

In sum, when trying to answer the question *to which extent is capital flowing to developing nations?*, it is possible to observe that, even when large emerging nations have substantially increased their participation in global financial markets in the aftermath of the global financial and economic crisis of 2008, and are nowadays receiving a larger share of global capital flows, developed economies continue to be the main poles of attraction of global financial flows. Some of the explanations given by the literature to these North-South differences in capital flow attraction are (i) differences in human capital endowments, and existence of market imperfections, (ii) that most developing nations do not count with transparent and efficient institutions, which does not help to call foreign investors, and (iii) that many developing nations continue using capital controls that restrict flows. These broad views on capital flows provide us with a first intuition of which could be some of the determinants of foreign direct investment attraction in developing nations, which is the focus of this thesis. The empirical evidence testing these theories is not conclusive but, overall, it can be argued that capital account liberalization, *per se*, does not necessarily result in deeper and more efficient domestic financial institutions, much larger attraction of international capital flows, and faster economic growth.

The next section explains how existent differences in capital flowing to developed and developing economies are to some extent related to the persistence of large macroeconomic imbalances in the global economy during the past decade.

1.3. Global imbalances were behind the stumble of 2008

The fact that global capital flows over the past decade were concentrated in developed nations had partly to do with the presence of large global imbalances. In the aftermath of the Asian crisis of 1998, many developing nations started to accumulate reserves denominated, mainly, in U.S. dollars. East Asian countries and oil exporters, as well as Central and Northern Europe have been increasingly running current account surpluses, whereas the United States and peripheral Europe enlarged their deficits.

Why and when do these imbalances emerge? The basic macroeconomic identity⁵ of an open economy easily shows how the current account deficit (surplus) implies a negative (positive) net investment in the rest of world:

$$X + NTR - M \equiv CA \equiv \Delta NFA \equiv (Sp - I) + (T - G)$$

In principle, imbalances are neither good nor bad, current account and capital account do not need to be balanced. According to neoclassical economic theory, savings should go where they are most productive, so imbalances naturally emerge from differences in saving behaviour, in the rate of return on capital or in the degree of risk and liquidity of the different assets.

One of the theoretical arguments to sustain a large capital account surplus and current account deficits over time is that an economy can this way increase its growth rate by attracting foreign capital and foreign direct investment. According to inter-temporal borrowing-lending models, accessing the

5.

Where X is exports; M, imports; NTR, net factor income and net unilateral transfers; CA, current account balance; Sp, private savings; I, investment; T, taxes; G, government expenditure; ΔNFA (Net Foreign assets) position, denotes the change the economy's net foreign assets by aggregating all sectors, including the central bank, banking and non-banking financial institutions, the treasury and non-bank private sector.

international capital market, i.e. borrowing, allows a country to undertake extra investments, as well as to enjoy the extra first-period of consumption, which may have in some developing nations led to over-borrowing and debt overhang (Easterly 1999). Successful realization of the income-enhancing debt strategy requires the following conditions: additions to external debt are used for growth-enhancing productive investment, the growth rate targeted by this strategy exceeds a stable world interest rate, and the marginal domestic savings rate should exceed the investment ratio required by the target growth rate, so debt will eventually begin to decline, and the marginal product of capital should exceed the cost of borrowing.

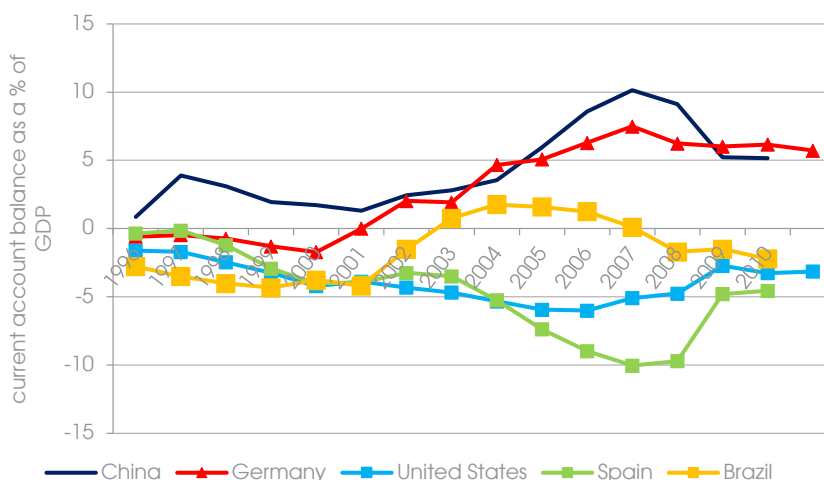
However, while external borrowing may allow faster economic growth, excessive reliance on foreign finance may increase fragility and lead to crisis. According to Mckinnon and Pill (1998), an internationally liberalised economy may face an “overborrowing-overinvestment” problem when there are euphoric expectations about liberalisation and the domestic regulation and supervision of domestic financial market and institutions is weak. This is more likely to be an issue in developing nations, but problems with “toxic assets” during the current crisis have also revealed vulnerabilities among financial institutions and oversight bodies in developed nations.

Additionally, as it has been noted by Prasad et al (2006), under certain circumstances *<<a positive correlation between the current account surplus and a country's growth rate>>* may appear. Their counterintuitive explanation is that endogenously (productivity growth) or exogenously (population growth) generated savings may enhance economic performance, so it is not necessary to run large deficits.

Structural global imbalances started to enlarge at the beginning of the past decade, with China and East Asian Countries, Central European countries (Germany) and oil exporters (Russia, the Middle East, South America) expanding their trade and current account surpluses. On the other hand, the

United States, peripheral Europe (Spain, Italy, Ireland) and non-commodity exporting developing economies (in Central America, for example) presented increasing current account deficits and increasing external financing needs.

Figure 1.3-1. Evolution of imbalances in selected countries.



Source: Global Development Finance BOP figures, the World Bank

How have imbalances evolved over time? According to Obstfeld and Rogoff (2009), in the late 1990s imbalances seemed to be logically responding to differences in returns on investment across countries, as the US was presenting a high tech boom, whereas the Asian crisis and declining productivity in Japan led to a decrease in flows to Asian countries. However, in the 2000s the nature of global imbalances turned “bad”, at least for Western economies, as household savings declined and increasing investment started to generate asset bubbles that not reflected economic fundamentals properly, and ultimately exploded during the 2008 global financial crisis (Blanchard et al, 2010). Bernanke (2005) considered that a “global saving glut” (a world increase in the supply of savings) was *per se* at the core of the explanation of both the increase in the U.S. current account deficit and the relatively low level of long-term

real interest rates in the world; however, other authors empathize the role U.S. financial institutions and regulators had in the enlargement of imbalances. For instance, Caballero and Krishnamurthy (2009) build a model that explains how global imbalances led to the U.S. securitization boom and ultimately helped to unleash the global financial crisis. Demand for risk-less assets coming from the rest of the world (e.g. investors from surplus China) provoked financial innovation: mortgages and some risky assets were pooled and packaged to form secure “AAA” senior tranches to be sold abroad. Thus, American financial institutions increased their leverage and the “toxic waste” was hold in the U.S. Therefore, according to the authors, external demand for U.S. assets has played a part in the build-up to the crisis. In the same fashion, Obstfeld and Rogoff (2009) emphasize the role low interest rates played in the growth of U.S. foreign liabilities. Still, exchange rate and other asset price movements kept that debt growing below U.S. current account deficit growth rate. In addition to that, they argue that China was able to sterilize large currency purchases, thus keeping an undervalued currency and postponing the rebalance of its economy.

In spite of the fact that global external imbalances have naturally contracted with the outbreak of the global financial crisis, there seems to be agreement on the need of diminishing them further (Obstfeld and Rogoff, 2009; Blanchard and Milesi-Ferretti , 2009). However, it is very likely that net exporters such as China or Germany will continue running large current account surpluses, whereas the U.S. and Southern Europe are likely to continue presenting deficits, unless there are drastic economic policy changes. In Latin America, especial attention has to be paid to changes in the terms of trade: deteriorating terms of trade would negatively affect commodity exporters, whereas it could somewhat help Central American countries reducing their current account deficits. At the same time, this could potentially result in changing patterns in capital flows to the region.

It is also worth noticing that the global financial crisis of 2008-2009 put

to test some of the traditional policy-making myths. For example, Correia et al (2013) show that monetary policy is almost ineffective when interest rates are close to zero, a situation in which a fiscal expansion may be a better countercyclical measure. Reinhart and Rogoff (2013) also question the fiscal austerity approach European countries have adopted to get out of the crisis, claiming that using some of the solutions often applied by emerging markets (debt restructuring, financial repression and higher inflation) would have granted a faster recovery. Farhi and Werning (2013) argue that there is a case to implement capital controls to mitigate volatility on the capital account even under flexible exchange rate regimes. In addition, macro-prudential regulation has come to play a dominating role in the current policy toolkit (Claessens et al, 2013; Jeanne, 2013). Even the possibility of imposing a “Tobin tax” on international capital transactions (see Spahn, 1995) has revived as a popular idea in the aftermath of the crisis (Hanke et al, 2010).

In sum, global imbalances and the motives behind them are closely related to the fact that, contrary to what would be expected, capital is not flowing from North to South, but rather in the opposite direction. The largest developed economy (U.S.) is a net borrower, where some emerging markets that could guarantee high return to foreign investment are in fact international creditors. Policy choices by certain developing nations (accumulation of savings and reserves for precautionary reasons, the alleged purposeful undervaluation of the Chinese currency to gain export competitiveness) are unlikely to be the sole explanatory factor behind these large imbalances and the distorted trends of capital flows. Thus, there is a need to complement neoclassical models by looking other sets of factors that may be preventing global capital flows to fuel the engine of developing nations.

The global financial crisis of 2008 was partly provoked by the existence of these imbalances, and changed numerous preconceptions about policy making: macro-prudential regulation and capital controls are no longer excluded from

the range of suitable policies, as they may help mitigating volatility in the context of economies that are increasingly integrated in the era of globalization. Going forward, one of the main challenges lies in the need to reform some aspects of the international monetary system in order to eliminate perverse incentives forming asset bubbles and speculative runs (such as those witnessed in the U.S., Spain or Ireland prior to 2008), which may have limiting flows to developing nations (Nissanke and Stein, 2003). Emerging markets may need to be provided with some kind of safety net that allows them to stop accumulating currency reserves, as well as to better attract stable productive financing.

1.4. The composition of international capital flows. Why is FDI preferred?

We have so far referred mainly to the international “circulation” of capital flows, but it is important also to look at their composition, as there is an on-going debate regarding which kinds of capital flows are more beneficial for economic development.

Firstly, it is worth noting that FDI is defined as those investments made by foreigners that reach at least 10% of the total social capital of a certain company; this includes not only Greenfield investments (e.g. establishment of new factories), but also merges and acquisitions. Below that 10% threshold, equity investments are categorised as *portfolio equity*. While initially thought to be relatively unstable short term investments, as opposed to FDI, there is an increasing number of papers that consider portfolio equity and FDI of similar nature (Hattari and Rajan, 2011).

Among capital flows, *foreign direct investment* is considered to be a source of long term capital that reinforces economic stability and development. From a static point of view, the traditional trade theory approach predicts increases in

the marginal product of labour from the introduction of foreign capital, derived from knowledge spillovers and learning by doing processes. Additionally, the theory of industrial organisation considers that FDI may bring positive dynamic externalities such as backward and forward linkages, demonstration effects and improved human capital that will ultimately contribute to industrial development and economic growth (Venables, 2001; Markusen and Venables, 1999). On the other hand, however, multinational enterprises may crowd-out domestic companies and lead to industrial restructuring and unemployment⁶.

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For a comprehensive presentation of the theoretical benefits and costs derived from FDI see MacDougall (1960), Caves (1974) and Dunning (1998).

In turn, *portfolio debt flows*, which include portfolio bond flows and commercial bank loans, are supposed to be short termed, instable and pro-cyclical, accentuating in some cases macroeconomic volatility in developing countries. The portfolio choice (or “diversification finance”) concept can be understood as a mix of investment positions in several assets (stocks, bonds, options, futures), taken in order to shed risk. In this process, risk perception and expectations are very influential, and the pro-cyclical nature of portfolio flows may result in herd behaviour that leads to capital flight and “sudden stops” (see Calvo, 1998).

Authors such as McKinnon and Pill (1998) describe how over-borrowing could follow financial liberalization should financial institutions not be adequately monitored and safeguards and provisions established. These kind of theoretical models were initially used to explain certain banking crises linked to capital flight in developing nations, such as that of Mexico in the late 1980s and early 1990s. However, it can be argued that little was learned from past mistakes, as the real asset bubbles that burst in the United States, Spain or Ireland at the onset of the current global economic slowdown were also the product of private overborrowing. In these cases a *moral hazard* problem (see Eichengreen and Hausmann, 1999) appears at two levels: a) inadequate management in domestic financial institutions generates unsustainable debt that is, however, implicitly guaranteed by the nation (as has been the case of

Bankia and other *Cajas de Ahorros* in Spain); and b) unsustainable sovereign debt leads to rescues by international financial institutions and supranational bodies such as the European Union (Greece, Portugal).

For these reasons, developing nations cannot solely rely on short termed capital flows to achieve sustainable growth. Recent evidence seems to point to the fact that developing economies with a higher exposure to portfolio investments and foreign loans suffered a more severe liquidity crunch than those more exposed to FDI (Tong and Wei, 2011).

In the early 1980s both emerging markets and developing economies presented a composition of capital flows very similar to that of advanced economies, with debt flows accounting for 83% of the total inflows. Some of these economies, which relatively underdeveloped financial markets and recent financial liberalization, suffered sudden stops and capital flows reversals. Some have argued that financial integration has made developing economies more vulnerable to external shocks (Stiglitz, 2000; Sighn, 2002; Demir, 2004).

In turn, at the beginning of the new century, the weight of debt in emerging markets was of only 40%, contrasted to 48% of FDI inflows and 12% of portfolio equity. Other developing economies were also receiving an increasingly larger proportion of inflows in the form of FDI (Kose et al, 2006). Theoretically, this would be a good sign, given that FDI is alleged to be beneficial for growth, even if evidence remains inconclusive (Magnus and Kokko, 1997).

In sum, not all kinds of capital flows may equally contribute to development. Certain kinds of flows, such as portfolio bonds, often follow temporary “diversification” purposes instead of longer term “developmental” objectives.

In the words of Wolf (2005), *<<[t]he failure to create stable net flows of development finance from the rich world to the poor one is arguably the greatest failure of the current wave of financial globalisation>>.*

1.5. The race to attract foreign direct investment

To sum up, contrary to what neoclassical economics would predict, the majority of international capital flows are not being directed to developing economies (with theoretically higher rates of return). The international crisis starting in 2008 is partly explained by the existence of large global imbalances leading to bubbles in real estate and financial assets in developed economies (U.S., Spain, Ireland) that resulted in distorted capital flows patterns, which may have curtailed inflows received by developing economies. Even when flows to emerging economies have increased substantially in the aftermath of the crisis, developed nations continue holding the share of the lion in capital flows, whereas low income countries struggle to attract foreign investors.

Developing nations may want to continue pursuing international capital flow attraction, but not at any cost. One of the lessons emerging from the literature is that capital account liberalization, if not accompanied by other measures, does not necessarily result in deeper and more efficient domestic financial institutions, much larger attraction of international capital flows, and faster economic growth (Prasad and Rajan, 2008). A second finding is that there is evidence that capital flow composition matters: attention has to be paid to the nature of capital flows that are arriving. Whereas Foreign Direct Investment is widely regarded as a type of flows that encompass a series of positive externalities (knowledge spillovers, backward and forward linkages), and contribute to economic development due to its long term nature, on the other hand short term portfolio equity and, especially, short termed debt flows, may enlarge macroeconomic instability, provoking in some cases sudden stops (Hattari and Rajan, 2011). In this context, and contrary to some traditional views, the more recent literature has argued that temporary capital controls and administrative measures (capital ratios, loan to value ratios) should not be ruled out, at least as a complement to responsible macroeconomic management in times of high financial volatility (IMF, 2012:19; Farhi and Werning, 2013;

Claessens et al, 2013; Jeanne, 2013).

In conclusion, the current view is that the nature of financial integration may be more important than the degree of financial openness in achieving sustained economic growth (Aizenman and Pinto, 2011). Even if evidence is not conclusive, maintaining sustained FDI inflows with long termed *developmental* purposes is believed to be more important to achieve economic progress than attracting short term portfolio flows with *diversification* purposes.

Given these differences in composition, developing nations, especially since the late nineties, have put the emphasis in the attraction of foreign direct investment. In many cases, they are competing among themselves in which could be a *race to the bottom* in labour standards (Brown, 2001; Baldwin, 2003; Basinger and Hallerberg, 2004; Singh and Zammit, 2004; Chau and Kanbur, 2006; Olney, 2013), privileges granted to foreign companies establishing in free trade zones, tax exemptions, and environmental standards. At the same time, investment climate seems also to matter for FDI attraction (Kinda, 2010), and countries have initiated a *race to the top* in improving the business environment. Many economies also enhance intellectual property rights protection (Awokuse and Yin, 2010), investor protection, or trade preferences (Bagwell and Straiger, 1999), with the expectation of attracting larger FDI inflows.

In this context, developing nations with similar characteristics and similar relative distance to core economies may be seen as alternative locations by potential foreign investors (Dunning, 1998), and for that reason they try to increase their appeal to them. However, not all abovementioned policy tools may be equally important in attracting FDI. In addition, other series of macroeconomic and institutional factors are likely to have a bearing on FDI. The papers included in this volume have the common aim to identify which are the factors that are influencing FDI flows the most. This way, we intend to (i) help policy makers in developing nations making the most efficient choices when competing for FDI, (ii) equally enhance the decision making process

by international investors, and (iii) contribute to the stream of literature on the determinants of FDI by bringing specific lessons from a set of developing economies.

As we discuss in detail in the following chapters, there is some evidence that developing economies may first need to ensure certain macroeconomic and institutional stability to attract significant foreign direct investment flows. Not all institutions matter: there seems to be a need for government stability and a good legal framework to protect foreign investment (and limit expropriation), whereas the quality of bureaucracy and corruption levels do not seem to be significant determinants of FDI. There is some evidence that rule of law and the fairness of the court system do influence to some extent direct investment decisions. Within macroeconomic variables, short term debt, import and export levels and current account balance seem to significantly influence inflows, whereas inflation or growth in per capita income appear as insignificant. Finally, we argue that regional integration helps enhancing FDI attraction (see Medvedev, 2012), although the effectiveness will depend on the clauses included in the trade agreement, and the nature of the process.

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CHAPTER #02

DO CHANGES IN THE RULES OF THE GAME AFFECT FOREIGN DIRECT INVESTMENT IN LATIN AMERICA?

A LOOK AT THE MACROECONOMIC, INSTITUTIONAL AND REGIONAL INTEGRATION DETERMINANTS OF FDI

2.1. Introduction

Over the past two decades, foreign direct investment (FDI) inflows to Latin America have increased significantly, causing the regional stock of FDI in the region to currently be approximately 30% of GDP, similar to that of East Asia, compared with just 5% of GDP at the beginning of the 1980s (one-third of that observed in East Asia). However, not all Latin American countries have been equally successful in appealing to foreign investors (see Table 2.7-1 in Appendix A. *Stylized facts on global and regional FDI flows*). The aim of this paper is to identify the determinants of FDI flows to Latin America in the period from 1990 to 2010, to understand which factors may have led to success and which policy measures could be enhanced to sustain the appeal of this region to foreign investors at a moment when the overall region still exhibits notable

economic dynamism.

Contrary to previous papers on FDI in Latin America, we choose not to include the “lost decade” years, focusing instead on a more recent period of study. This article also contributes to the existing literature by going beyond the macro cross-country exercise, bringing “risk management” issues into the discussion (e.g., the institutional risk perceived by foreign investors, closely related to the political economy of the country) and trying to describe options for policy makers. Political economy-related determinants are also important because the government’s stability implies its ability to remain in office. However, governmental stability seems to be a necessary but not sufficient condition because attracting FDI requires substantial institutional changes.

The main research questions addressed by this article are (i) to what extent better macroeconomic management has helped certain countries attract more FDI, (ii) what the role of improved and more transparent institutions has been and (iii) to what extent the DR CAFTA agreement may have contributed to the sharp increase in FDI inflows observed in Central America. It is worth mentioning that these hypotheses do not come from a single theoretical framework but rather represent a compilation of the dimensions that can be analyzed with macro-level data. It is also worth acknowledging that due to data limitations for Latin American countries, we do not use a bilateral FDI flow matrix, and for this reason, a gravity-model approach is not adopted.

The results of the econometric analysis point to the previous stock of FDI, trade openness, low short-term debt levels, balance of payments deficits and governmental stability as the main (robust) determinants of foreign capital flowing to Latin America from 1990 to 2010. Contrary to expectations, the DR CAFTA agreement does not seem to have significantly enhanced FDI inflows to signing countries. There is also some evidence that foreign entrepreneurs show a greater propensity to invest in countries with sound legal frameworks and a low risk of expropriation. This evidence may also help explain why economies

that have improved their institutions over the last decade (e.g., Chile, Costa Rica and Peru, which were clearly grouped by cluster analysis techniques) are currently receiving larger FDI flows. In contrast, Argentina, Ecuador and Venezuela have made more frequent changes to the rules of the game, and today, these countries are receiving foreign inflows well below their potential because investors perceive greater risk.

Other institutional variables considered here do not seem to be significant determinants of FDI. However, it is worth noting that under uncertainty (high exchange rate variability, institutional instability), potential investors may delay their entry into certain markets, or foreign subsidiaries already established in economies suffering from uncertainty may wait prior to making disinvestment decisions. These behaviors would lead to non-linearities in the relationship between FDI inflows and their determinants. We discuss the literature addressing hysteresis effects under the effects of uncertainty in more detail in section 2.2.3 (see Dixit, 1989; Cross, 1994; Belke and Goecke, 2005; Belke, Goecke and Hebler, 2005).

The rest of this chapter is structured as follows: section 2.2 reviews existing literature on the determinants of FDI; section 2.3 presents the empirical tests used in this work; section 2.4 draws policy implications for policy makers in Latin America; section 2.5 presents the conclusions.

2.2. The determinants of FDI: Theory and evidence

There are large strands of literature that try to establish what the determinants of FDI are. In this section, we briefly summarize the main theoretical approaches used in an effort to identify the most influential variables for our analysis: (i) the neoclassical framework, (ii) Dunning's ownership, location and internalization advantage (OLI) framework, (iii) horizontal and

vertical FDI models and (iv) risk diversification and institutional views. We also discuss the findings of the literature empirically assessing this determinants in Latin America, as well as decision-making under uncertainty.

2.2.1. Theoretical approaches to the determinants of FDI

(i) Neoclassical economic theory holds that under perfect factor mobility, capital would flow from relatively rich countries to relatively poor countries. The Law of Diminishing Returns to Capital implies that new investment should take place in countries with relatively low capital-to-labor ratios. Similarly, the H-O model (Ohlin, 1933) argues that a country will export the commodity that intensively uses its relatively abundant production factor.

This approach provides a preliminary intuition of the determinants of FDI, suggesting the importance of returns to capital and differences in factor endowments across economies. However, it is worth mentioning that these models do not perceive market imperfections and assume zero transaction costs. As observed by Lucas (1990), in reality, capital flows follow a “North-North” pattern rather than a “North-South” pattern. Despite increased international flows in recent years, international capital mobility is far from perfect. In reality, the existence of economies of scale, backward and forward linkages, systemic distortions and dissimilar regulations across countries are some of the reasons why neoclassical trade theory fails to predict the patterns of global capital movements.

(ii) From a microeconomic perspective, **the OLI framework**, initially formulated by Dunning (1973; 1980), examines the motivations of transnational companies to invest abroad rather than simply exporting their products. Dunning distinguishes between three groups of advantages: ownership

advantages refer to the existence of firm-specific assets and knowledge-based assets such as patents, differentiated management formulas, marketing organizations and others that provide multi-national companies with advantages over local companies in foreign markets. Second, locational advantages such as different factor endowments, benefits from positive externalities or the avoidance of transportation costs or trade barriers can be obtained by investing abroad (see Dunning, 2001). Finally, internalization advantages are derived from the theory of the firm in institutional economics (see Coase, 1960; Williamson, 1989); instead of exporting or licensing, a company can save transaction costs and minimize the risk of imitation or suffering reputational losses by locating directly in the target market. According to this framework, knowledge-intensive industries are expected to represent a larger share of international companies and foreign-owned capital. A common criticism of the OLI paradigm is that although it helps to explain the distinguishing features of multinational companies, it fails to account for some FDI trends such as the predominant North-North pattern or the observed intra-industry investment (Buch et al, 2001).

Dunning (1980) tested his own hypotheses using U.S. firm-level data from the 1970s, concluding that relative market size (location), wages (location), net income per sales (location) and the skilled employment ratio (ownership) had significant influences on the location of multinational enterprises. Following Dunning, rich empirical literature has tested the OLI framework in a variety of contexts, overall finding that FDI is influenced by factors such as ownership advantages, market size and specific market features, transportation costs, legal investment framework, infrastructure and property rights (see Faeth, 2009, for a review of this portion of the literature).

(iii) The horizontal-vertical approach emerged in the 1980s in a New Trade Theory setting and joins part of the OLI framework with knowledge and country characteristics (Helpman, 1984; Markusen, 1984; Krugman and

Venables, 1995). This approach distinguishes between three different reasons for foreign capital to flow into an economy:

- *Resource-seeking activities.* In most cases, a multinational corporation establishes a plant in a developing country to obtain raw materials. A well-known example is that of American and European companies investing in Latin America during the 1990s in the midst of economic liberalization processes. Although the host economy may benefit from the new job opportunities and industrial development related to the multinational's activities (virtuous cycle), problems may arise, such as resource exhaustion or excessive dependence on commodity trade and "*re-primarization*" (leading to a vicious cycle such as the Dutch disease). To what extent the host country will benefit from foreign investment depends on the terms of the concessionary agreement signed with the multinational and the ability of local institutions to manage the income. Recent events such as the re-nationalization of YPF in Argentina illustrate the sensitivity toward allowing foreign investment in strategic resources. At the same time, nationalization also constitutes a negative signal to investors in other sectors.
- Gain access to local markets (horizontal FDI). As we have observed, corporations tend to invest in countries where there is a large demand to serve and transportation costs from the company's home maker are burdensome. Horizontal FDI is also used to avoid high tariffs or other import restrictions. Therefore, FDI is said to be a substitute for international trade, and it might increase competition for local industries. This type of FDI is usually called tariff-jumping FDI or *domestic-consumption-oriented* FDI.
- Enjoy cheaper factor prices (vertical FDI). Corporations establish plants for labor-intensive processes in economies where wages are low and there is a sufficient transportation connection with developed nations. This type of FDI is normally *export-oriented* and can lead to the aforementioned backward and forward linkages, in some cases helping the local economy to

enter a virtuous cycle.

Initially, general equilibrium models considering monopolistic competition were used to separately explain the behavior of vertical (Helpman, 1984) and horizontal FDI (Markusen, 1984). Markusen and Maskus (2001) developed a *Knowledge-Capital model* that combined both the vertical and horizontal models, allowing for multiple production facilities and separating cross-support centralized services from disperse production in some cases. According to this paradigm, horizontal multinationals tend to be established when the two countries are similar in size and total demand is high (large market). Conversely, vertical multinationals will appear when economies are dissimilar in size and endowments. In the same fashion, Shatz and Venables (2000) argue that FDI in rich economies is mainly horizontal, whereas in poor economies it tends to be vertical. Venables (2003) considers that horizontal FDI is likely to be a substitute for trade because firms use FDI instead of imports to supply the market. This form of FDI will probably result in competition with local industries. In contrast, vertical FDI is a complement to trade and may even create trade flows. This form of FDI is export-oriented so that it does not normally compete with local industries. These dissimilar characteristics are relevant because they imply that the impact of regional integration will vary depending on the type and motivations of FDI. Currently, it is generally accepted that FDI and trade are complements rather than substitutes, as has been demonstrated in most empirical tests (Dunning 1997a, 1997b).

In the context of proliferating free-trade agreements (Baldwin, 2006), numerous authors have tried to theoretically link the horizontal-vertical approach with papers discussing the effects of regional integration on FDI (see Velde and Bezemer, 2006; Blomstrom and Kokko, 1997a; Stein et al., 2003). Empirical evidence seems to support the contention that enhanced regional integration increases inward FDI. However, existing studies are not always able to determine the causes of dissimilar performance across regions/treaties

(Blomstrom and Kokko, 1997b; Altomonte, 2007). Additionally, as Dee and Gali (2005) highlight, few studies in the literature have addressed the effects of preferential non-trade provisions included in these agreements. These caveats notwithstanding, this paper uses a dummy variable (following Wolf, 2002; Sayek, 2007) to capture the relevance of the DR CAFTA agreements in the attraction of FDI to Central America to assess whether this may have been a significant determinant of FDI for the countries involved in the agreement.

(iv) Finally, it is worth mentioning the emergence of a recent **risk diversification** hypothesis that aims to complement established theories (based on transaction costs and the knowledge capital model). According to this approach, vertical FDI is more common than Markusen (1984) suggested, and companies often open different production facilities and export platforms or even use outsourcing to diversify risks, including country-specific, political and economic risks (Grossman and Helpman, 2003).

Additionally, drawing from new **institutional** economics (Rodrik et al., 2004), and given that FDI attraction is often presented as a “beauty contest” or even a “race to the bottom”, *policy variables* are often included as determinants of FDI because the host government can significantly influence investment decisions by altering taxation policies, industrial policies, the repatriation of dividends and other aspects of the legal and regulatory framework (see, for instance, Busse and Hefeker, 2007).

In conclusion, drawing on these different theories, we argue that it is possible to distinguish at least four groups of variables influencing FDI: locational advantages (endowments, externalities, transportation costs, trade barriers, cultural similarities, language), ownership advantages (presence of strategic assets, patents), macroeconomic variables (GDP per capita, GDP growth, inflation, wage cost, interest rates, exchange rates, etc.) and institutional and policy variables (corporate tax rates, tax concessions, political risk, corruption, property rights or degree of financial liberalization).

2.2.2. FDI determinants in Latin America: Empirical evidence

To the best of our knowledge, few papers have studied the determinants of FDI in Latin America at the macro level. One reason for this may be related to data limitations (e.g., the non-existence of a comprehensive bilateral matrix of FDI flows in the region). In this section, we briefly summarize the conclusions of the existing literature.

Bengoa and Sanchez-Robles (2002) studied the influence of economic freedom, defined as the extent to which economic activities can be developed without interference from the government, on FDI. Using panel data for 18 Latin American countries between 1970 and 1996, the authors conclude that economic freedom and GDP (market size) are positively correlated with FDI, whereas inflation and debt service have negative effects on foreign investment.

Biglaiser and DeRouen (2006) analyze how various economic reforms have influenced FDI in 15 Latin American countries over the period from 1980 to 1996, also controlling for macroeconomic and institutional variables. These authors conclude that Latin American governments that introduce privatization, capital account liberalization or tax reforms are not more likely to attract FDI. Only trade liberalization seems to have a positive effect on FDI attraction. On the other hand, the quality of institutions matters: countries presenting lower expropriation risks are significantly more likely to obtain higher FDI inflows. On the macro side, GDP per capita and government consumption variables exhibit significant but negative coefficients, whereas GDP growth is insignificant. Some of the explanations posed by the authors to account for the lack of impact of structural reforms on FDI attraction in the region include the relatively small size of privatization, the slow pace of reforms and the intuition that capital account liberalization has a greater influence on short-term portfolio flows. These results could be complemented with the analysis of more recent data (from 1997 onwards) to account for the delayed effects of reforms

or more recent trends in FDI determinants.

Trevino et al (2002) assess the influence of macroeconomic determinants and market reform in seven Latin American countries between 1988 and 1992. Using root tests and co-integration analysis to control and correct for non-stationary data, they find that rapid GDP growth, large current account deficits and privatization reforms positively affect FDI. They consider that potential investors may consider current account deficits as representing an opportunity to obtain better negotiating terms because this indicates that the country is in need of attracting capital inflows. In contrast, capital market liberalization reforms are found to have an insignificant effect on FDI; inflation and exchange rate volatility are also insignificant. A potential shortcoming of this study is that results may only reflect the determinants of FDI in LAC during the short data span considered (annual observations for 1988-1992). It is well known that this period featured large current account deficits in LAC countries, even among oil-exporting countries, inflation and exchange rate volatility were common in the region, and most of these countries were still in the process of liberalizing capital accounts. In this study, we try to offer more comprehensive conclusions based on a longer period and a larger group of countries.

In a similar fashion, Montero (2008) observes 15 Latin American countries between 1985 and 2003, concluding that current account deficits have a positive and statistically significant impact on FDI attraction. On the other hand, financial reform, tax reform, privatization and, in this case, trade liberalization are found to have insignificant effects on foreign investors.

Overall, these articles highlight the lack of significant effects of privatization, capital account liberalization, tax reforms and other restructuring policies on FDI. Institutional variables are significant in some cases, and current account deficits seem to be significant determinants of foreign investment inflows. This article contributes to the existing literature in several ways. First, a more recent dataset that includes the last decade, during which Latin America

experienced a sharp improvement in FDI inflows, is used. Second, FDI data are obtained from the UNCTAD database, which includes both inflows and stock tables; this provides some advantages over studies lagging the dependent variable (FDI inflows), as FDI stock can be used as a proxy for the “initial level”. Third, we try to capture the effects of regional integration (DR CAFTA agreement) on FDI.

2.2.3. Investment decisions under uncertainty

Finally, in this section, we review the literature discussing hysteresis effects on decisions under uncertainty because this has implications for the debate on the response of FDI to variations in exchange rates and the institutional setting in destination countries.

Departing from a microeconomic foundation, Belke and Gokce (2005) elaborate an aggregated model that describes how the relationship between employment and its driving forces is affected by exchange rate volatility. Within an “inaction band”, exporters to a certain market may be less prone to leave the market and postpone the decision to fire workers when the local currency is depreciating (and benefits from selling abroad are declining). When depreciation is steep and goes beyond the band, a “spurt” occurs, a strong reaction resulting in a large number of exporting firms exiting the market and firing their workers. A similar inaction band would apply to potential exporters considering beginning to sell to a destination market (and hiring workers to do so) because these exporters will wait for the destination currency to appreciate to a certain level. In sum, these authors show how sunk costs generate hysteresis effects, which are amplified by uncertainty. At the core of the model presented by Belke and Gokce is a pioneering paper by Dixit (1989) that draws some analogies between real investment and financial investment decisions, using the concrete concepts of “call” and “put” options. In the field of labor economics,

Pissarides (2001) shows how suitable employment protection legislation can help to mitigate hysteresis effects.

What are the potential implications of these findings from the point of view of determinants of FDI? FDI is characterized by large sunk costs and the long-term nature of decisions, which are often “irreversible”, as indicated by Dixit (1995). These conditions could amplify hysteresis because a ‘weaker’ relationship (i.e., “band of inaction”) would exist between FDI and its determinants due to exchange rate volatility and institutional uncertainty. Thus, intervals of weak response to reversals of the forcing variable (“play areas”) would emerge on the macro level, and ‘spurts’ in new FDI may occur after an initially weak response leading, for example, to currency depreciation in the destination market. Cross (1994) suggests that only the non-dominant extreme values of influential variables are used in investment decisions, resulting in the expectation of large adjustments when those values are surpassed, which has implications for time-series analysis. Thus, the relationship between FDI and exchange rate variability (as well as other variables related to institutional uncertainty) could be plagued with non-linearities.

At the same time, Belke and Gokce (2005) acknowledge the limitations of their partial equilibrium model because it assumes a lack of mobility of factors between the production of exports and the production of the local market and other real options for the entrepreneur that would reduce the importance of the non-linear persistent exchange rate effects. We would add to this the possibility that the exporter or the investor will acquire exchange rate hedge mechanisms or use forwards to mitigate exchange rate risks, which could also help to reduce hysteresis. Furthermore, a recent strand of the MNE literature (Cui and Jiang, 2009; Dikova and van Witteloostuijn, 2007) states that in most cases, foreign direct investment by multinationals is a response to strategic decisions (asset seeking, market access, positioning in global value chains, etc.), which is likely to decrease the relevance of the hysteresis induced by exchange rate variability.

For example, investing in a destination economy before a direct competitor reaches the same market may have more weight on the investment decision than prospects or expectations of depreciation in the destination currency.

Overall, it is difficult to determine a priori whether the hysteresis or the mitigation effects will dominate the relationships between FDI inflows, exchange rate variability and other institutional variables. For the purposes of this paper, and given the chosen approach and data limitations, we opt to conduct our analysis at a macro level, focusing on determining whether non-linearities exist in the relationship between the institutional and FDI inflows variables of our dataset. Nonetheless, it would be worthwhile to further explore and test the microeconomic foundations of FDI decisions under uncertainty in future research.

2.3. An empirical model to estimate drivers of foreign direct investment in Latin America

2.3.1. Variables, data and methodology

As discussed at the beginning of the paper, our objective is to identify the main determinants of FDI inflows to Latin America from 1990 to 2010. To do so, we do not embrace a single theoretical approach but rather proceed to test a series of hypotheses that have been drawn from the literature review presented in the previous section.

First, **Neoclassical theories** argue that countries with lower capital endowments (developing economies) will enjoy higher returns to capital, thus making them more attractive to investors. Lucas (1990) showed that this hypothesis is not often met in reality. Nevertheless, the stock of foreign direct investment as a share of GDP and/or the stock of total investment as a share

of GDP is often considered in the empirical literature as a proxy of whether countries with higher capital endowments attract more FDI (see Kemegue and Mohan, 2009). In this case we include *interest rates* as a proxy for returns to capital.

Secondly, **Dunning's eclectic framework** presents a series of ownership, location and internalization advantages that have usually been tested using firm-level data. At the macro aggregated level, some aspects of the location dimension noted by Dunning (1973;1980) (market size, labor costs and favorable tax treatment) can still be tested empirically. In our case, we include the market size (GDP per capita) and a proxy for human capital (secondary completion rates) to determine to what extent they significantly influence the location decision. Large markets are expected to attract market-oriented FDI. Counting with highly qualified human capital would be a decisive factor for foreign companies aiming to produce high value-added products, whereas it could be insignificant for the decisions of companies searching for cheap labor.

Third, **the horizontal-vertical FDI** approach contains some dimensions that cannot be tested without a bilateral FDI flow matrix, which is absent in the cases of Central and South America. However, we can still try to prove the proximity-concentration hypothesis, which argues that market size and trade barriers increase foreign direct investment (expected positive correlation between tariffs and FDI). On the other hand, vertical and resource-seeking FDI will be attracted by cheaper factor costs (the proxy for capital could be interest rates), better infrastructures (approximated by *mobile phone* lines and *electricity distribution losses*) and innovation (*scientific research articles per thousand*), which would theoretically help to attract high value-added FDI.

Fourth, risk diversification and **institutional theories** can be partially tested by considering the impact of *control of corruption* (+), *rule of law* (+), *government stability* (+), *bureaucracy quality* (+), *investment profile* (+) and *exchange rate stability* (+) on FDI inflows. The signs in parentheses above reflect the

expected signs of those variables in their interactions with FDI flows. We draw from the *control of corruption* index prepared by the PRS Risk Group in its International Country Risk Guide (ICRG, see Table 2.8-5 in Appendix B for complete variable definitions and data sources). This guide takes into account not only actual corruption (difficult to measure) but also <<*potential corruption in the form of excessive patronage, nepotism, job reservations, 'favor-for-favors', secret party funding and suspiciously close ties between politics and business*>>. Thus, the expected sign of the *control of corruption* coefficient is positive because less corruption would help to attract foreign investors (“grabbing hand” hypothesis, see Egger and Winner, 2006). A different theory states that corruption is not an impediment to FDI in developing countries (“helping hand” hypothesis); if this were true, the expected sign would be negative. Rule of law is one of the dimensions often quoted in the New Institutional Economics literature as contributing positively to ameliorate the investment climate; in this case, we also refer to the *law and order* ICRG index, a compound of two factors: an assessment of the strength and impartiality of the legal system and an assessment of the popular observance of law. We also consider the ICRG *government stability* variable, which is an assessment of both the government’s ability to carry out its declared program and its ability to stay in office. This variable consists of a scale from 1 to 12 (best) constructed from three subcomponents: government unity, legislative strength and popular support. Political instability is considered to be a deterrent to investment (Aisen and Veiga, 2013). The ICRG quality of bureaucracy variable is measured on a scale from 1 to 6; a high *quality of bureaucracy* has been reported to enhance the effectiveness of policy implementation, and it is expected to positively interact with FDI because most countries are introducing measures to attract investment. Investment profile measures the risk of expropriation, obstacles to profit repatriation, payment delays and risks posed to contract viability; a higher rating indicates a lower risk for investors. The inclusion of this variable is especially relevant in the case of Nicaragua, where past conflicts over land expropriation, property rights

and ownership have been severe. Finally, the ICRG *exchange rate stability* index takes the variability of exchange rate evolution over five years into account as well as current risk points, presenting results on a scale from 1 to 10, with higher values indicating more stability. FDI has been reported to be sensitive to exchange rate variations, especially in a region such as Latin America, where some countries have traditionally suffered from exchange rate volatility, leading to currency crises in some cases in the 1980s and 1990s. According to Belke and Gros (2002, 2003), in contrast to those in EU countries, exchange rates in emerging markets such as Argentina, Brazil or Uruguay usually reflect confidence in the institutional setting and perceived sovereign risk. In these countries, simultaneous movements in exchange rates (e.g., depreciation) and interest rates (increase) are observed. According to these authors, exchange rate levels and volatility will be considered by entrepreneurs when making decisions encompassing large sunk costs, such as hiring or investment. In principle, international investors would prefer less volatile environments. At the same time, it is worth mentioning that under uncertainty leading to hysteresis in investment and disinvestment decisions, the relationships between institutional variables and FDI may be ambiguous, presenting inconsistent signs or appearing to be statistically insignificant because there are delays in responses to change (Belke and Goecke, 2005). In this sense, we will test for the existence of non-linearities.

A series of **macroeconomic** variables that are expected to have an impact on investment is also included. Investors are likely to be discouraged from bringing resources to countries with records of high *inflation* (-). High levels of *short-term debt to reserves* indicating potential government liquidity problems and a risk of sovereign default would also be negatively correlated with FDI (-). The ratio of the *current account balance to GDP* (-) is expected to have a negative impact on FDI, meaning that deficits attract foreign investors, as has been argued by the literature on the determinants of FDI in Latin America (Montero, 2008; Trevino et al, 2002).

Finally, **regional integration** is alleged to have a 1) positive effect on extra-region inward FDI and an 2) indeterminate effect on intra-region FDI, 3) with a positive overall effect on FDI attraction in most cases. For Central America, we try to test 3) by regressing inward FDI flows against a dummy that is expected to capture *DR CAFTA* effects.

Given that most of the variables included in the analysis are driven by stochastic trends, we perform tests for time series co-integration to ensure that the results are not distorted. We use the panel data co-integration test developed by Levin, Lin and Chu (2002) in most cases and that of Im-Pesaran-Shin when the sub-panel is unbalanced. In the presence of cross-section dependencies, which may be probable in a relatively integrated area such as that analyzed here (Latin America), these tests would result in excessive rejection of the non-stationarity null because there would be common sources of non-stationarity interdependences (see Gengenbach et al, 2010). To mitigate the effects of cross-section dependencies, as proposed by Levin, Lin and Chu (2002), we use a modified version of the tests that subtracts cross-sectional means. The test results show that both the dependent variable, FDI flows, and most of the macroeconomic and institutional variables are stationary. Only the stock of FDI, the GDP per capita, trade openness and the proxies for infrastructure and human capital present unit roots. To solve potential problems, we take the first difference of these variables, after which all variables become stationary (see Table 2.8-1 in Appendix B).

The dependent variable and estimation method are based on the UNCTAD FDI database because this database enables counting not only with FDI inflows but also with FDI stock, an accurate proxy of the level of previous foreign investment. In our original specification, we assume that the dependent variable, yearly FDI inflows as a percentage of GDP (y_{it}), is related to a series of macroeconomic, infrastructural and institutional determinants (x_{it}), as discussed at the beginning of this section, based on theory. We also consider

the presence of both non-stochastic and normal errors (v_i, u_{it}).

$$(i) \quad y_{it} = \beta_0 + \beta_1 x_{it} + \beta_2 \gamma_{it} + v_i + u_{it}$$

Following Kemegue and Mohan (2009), our initial assumption is that our dependent variable is likely to be related to the stock of FDI to GDP in a country (y_{it}), rather than to the inflows of the previous year. The idea behind this approach is that investment decisions in a concrete year are related to the existing level of foreign investment in a country (for which the stock of FDI is a good proxy), as risk-averse investors may be more prone to invest in economies with a greater foreign presence. On the other hand, FDI inflows are more volatile and may not be related to the FDI inflows of the previous period: for instance, record FDI inflows observed in the Dominican Republic in 2012 were mainly due to investment in gold mining and the acquisition of the largest brewery in the country by a Brazilian company; these investments are discrete and unlikely to be repeated but led to large inflows in 2013. For this reason, we estimate the following specification using Generalized Least Squares (GLS) with random effects as well as fixed effects for panel data and use the Hausman test to decide between the two approaches.

2.3.2. Regression results

Table 2.3-1 presents regression results for 19 Latin American economies over the period 1990-2010⁷. We have estimated our model under both fixed effects and random effects. Estimation under fixed effects is known to yield consistent results but a greater variance, whereas random-effects estimations are inconsistent and have a smaller variance. In most cases, fixed effects is the most appropriate choice, as demonstrated by the results of the Hausman test. The fixed-effects model is usually the preferred method among macroeconomists because it takes country-specific characteristics into account.

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Selected economies are Argentina, Bolivia, Brasil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela.

Another advantage to using fixed effects in these types of exercises is that the panel usually contains the economies of interest (in this case, 19 Latin American economies) rather than being randomly defined (Judson and Owen, 1999).

First, we find that the coefficient for the existing FDI stock in the country is highly statistically significant and robust across the different specifications. This could point to some extent to the existence of “agglomeration economies”, meaning that FDI inflows could positively interact with existing investments, generating externalities, or it could simply mean that foreign investors are more inclined to invest in countries with greater “experience” with FDI (risk-aversion hypothesis).

The initial level of income in the economy (a proxy for market size) and the number of mobile phone lines only seem to be significant determinants of FDI in specifications I and II. However, this effect disappears when institutional variables are included. One reason may be that institutional variables are highly correlated with the level of economic development (per capita GDP) and thus would capture the influence of the latter (see Montes and Medina, 2009). Contrary to expectations, GDP per capita growth, a proxy for market growth rate or the growth of the host economy, does not seem to have been a significant determinant of FDI inflows to Latin America over the last two decades. This finding is consistent with the results of Biglaiser and DeRouen (2006) for the period 1980-1996.

Maintaining high levels of short-term public debt discourages foreign direct investment in Latin America. Thus, countries such as Nicaragua that had overwhelming debt burdens in the 1990s and needed international help to manage their debt under the HIPC initiative are likely to have received FDI inflows below their potential, at least during the last decade⁸. The coefficient for current account balance is negative, highly significant and robust among the different specifications. This implies that countries with larger external financing needs seem to appeal to long-term foreign investors, which is in

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Highly Indebted Poor Countries. A critical assessment of this initiative is presented in Nissanke (2010).

agreement with the existing literature on FDI in Latin America (Montero, 2008; Trevino et al, 2002).

Other macroeconomic variables such as inflation and nominal interest rates do not seem to have had a significant impact on foreign investment decisions in Latin America over the last two decades. The empirical literature on the determinants of FDI does not offer conclusive evidence on inflation: Stein et al. (2003) find a statistically significant and positive effect of inflation on FDI, whereas TeVelde and Benzemer (2006) or Sayek (2007) find an insignificant effect. Exchange rate volatility does not seem to be a significant deterrent for FDI either, although, as discussed in section 2.2.3, this may have to do with the mitigated or delayed response of investment decisions in the context of exchange rate uncertainty, something we cannot fully test in our model.

A higher degree of trade openness, measured as total exports plus imports as a percentage of GDP, seems to have a positive and significant effect on attracting FDI; this result contradicts the original horizontal FDI flows theory but is in line with the empirical literature (Dunning 1997a, 1997b). On the other hand, however, the coefficient for the average tariff is insignificant⁹, which does not seem to confirm the “tariff-jumping FDI” hypothesis. The proxies for scientific innovation and infrastructure (electricity distribution losses) are found to be insignificant.

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For the average most favored nation tariff, we rely on incomplete data from the World Development Indicators starting in 1996. For this reason, the table does not present the results for this variable because a different period is considered.

Table 2.3-1. Regression results. Original specification.

	I	II	III	IV	V
	Fixed	Fixed	Fixed	Fixed	Fixed
unctad fdi stock	0.0484*** (6.21)	0.0396*** (5.45)	0.0989*** (6.64)	0.0378*** (5.25)	0.0352*** (4.84)
gdp per capita	0.00128*** (4.53)	0.000710** (2.65)	0.0005 (1.19)	0.00036 (1.27)	0.00035 (1.24)
trade openness	0.0136 (1.56)	0.0328*** (3.92)	0.0287** (3.09)	0.0352*** (4.15)	0.0370*** (4.34)
gdp per capita growth	0.0335 (1.07)	0.0239 (0.84)	0.0372 (1.10)	0.0417 (1.45)	0.0433 (1.53)
inflation	-0.00013 (-0.44)	-0.0001 (-0.40)	-1E-04 (-0.40)	0.0000699 (0.26)	9.6E-05 (0.36)
interest nominal	-0.000135 (-0.58)	-3E-05 (-0.14)	-5E-05 (-0.24)	-0.000136 (-0.63)	-0.0002 (-0.73)
mobile phones	-0.0163** (-3.02)	-0.0132** (-2.67)	-0.0108 (-1.32)	-0.0051 (-0.96)	-0.0030 (-0.54)
secondary completion	1.998 (0.51)	3.854 (1.08)	-4.991 (-0.98)	-0.263 (-0.07)	-2.814 (-0.73)
short term debt to reserves	-0.00466*** (-3.45)		-0.00309* (-2.17)	-0.00314* (-2.19)	-0.0027 (-1.93)
current account balance (%GDP)	-0.201*** (-7.49)		-0.215*** (-6.85)	-0.185*** (-6.90)	-0.158*** (-5.74)
scientific articles per 1000			19.91 -0.93		
electricity losses (%)			-0.004 (-0.10)		
bureaucracy quality				0.142 (0.61)	-0.148 (-0.60)

continues in the next page →



	I	II	III	IV	V
	Fixed	Fixed	Fixed	Fixed	Fixed
control of corruption				-0.0493 (-0.28)	-0.0104 (-0.06)
government stability				0.287*** (4.15)	0.249*** (3.58)
law order				0.289 (1.69)	0.313 (1.85)
risk for exchange rate stability				-0.0372 (-0.55)	-0.0831 (-1.22)
DR CAFTA dummy					0.164 (0.32)
investment profile					0.271*** (3.46)
constant	-3.283** (-2.90)	-2.916** (-2.74)	-2.419 (-1.53)	-4.321*** (-3.64)	-4.949*** (-4.14)
N	342	342	290	342	342
Overall R-square	0.0608	0.3645	0.3598	0.4328	0.4144
Hausman p-value	0.00	0.0039	0.0217	0.00	0.00

Source: Author's calculations. *, **, and *** refers to the statistical significance of the coefficient at the 10%, 5% and 1% levels of confidence. The top value for each variable is the beta coefficient, and the bottom value in parenthesis refers to the t-test result.

Finally, specifications IV and V introduce institutional variables. Government continuity and its capacity to implement programs and reforms appears here as a highly significant and positive determinant of FDI. Foreign companies are also highly interested in avoiding countries with higher expropriation risks, as reflected by the positive and significant coefficient of the *investment profile* variable. The *law and order* variable, accounting for the impartiality of the legal system and the effective enforcement of the law, is barely significant at the 10%

level of confidence; foreign entrepreneurs investing in Latin America do take the quality of the legal systems in the various countries into account, but this is not the main factor motivating their decision. The quality of bureaucracy and control of corruption have insignificant effects in the different specifications.

In summary, empirical results indicate that the stock of FDI, trade openness, low short-term debt levels, balance of payment deficits and government stability are the main determinants of foreign capital flowing to Latin America over the period from 1990 to 2010. There is also some evidence that foreign entrepreneurs exhibit a greater propensity to invest in countries with sound legal frameworks and low expropriation risks, a finding that is in line with other analyses carried out at both the macroeconomic and firm levels for Latin American countries (Staats and Biglaiser, 2012).

Contrary to expectations, the DR CAFTA agreement does not seem to have significantly increased FDI inflows to signing countries. One possible explanation for this result is that the agreement is still relatively recent, there are numerous transitory dispositions and investment clauses may not yet be fully in force. We also have to acknowledge the notable caveat that we use a dummy to capture the effects of the free-trade agreement, which is similar to using a “black box” because it is difficult to describe what is going on inside it, as noted by TeVelde and Bezemer (2006). Further research is needed to fully test whether the DR CAFTA agreement has had a significant impact on FDI.

2.3.3. *Testing the robustness of results*

2.3.3.1. *Testing for non-linearities*

We use a basic tool developed by Jann (2008) to test the linearity assumption for the different predictors following estimation: $\llbracket N \rrbracket$ *check categorizes the*

predictor into bins, refits the model including dummy variables for the bins, and then performs a joint Wald test for the added parameters.>> We are especially interested in using this test to observe whether exchange rate variability presents non-linearities in its relationship with investment because the hysteresis under uncertainty approaches discussed above (Belke and Gokce, 2005) provides a theoretical foundation for the existence of such non-linearities. Similarly, the rest of the institutional variables could also interact in a non-linear manner with FDI under uncertainty.

Table 2.3-2. Non-linearity test results.

fd unctad fdi stock	Prob > F = 0.0000***
fd gdp per capita	Prob > F = 0.0755*
fd trade openness	Prob > F = 0.9959
gdp per capita growth	Prob > F = 0.1759
inflation	Prob > F = 0.3458
interest nominal	Prob > F = 0.8988
fd mobile phones	Prob > F = 0.0755*
fd secondary completion	Prob > F = 0.0126***
short term debt to reserves	Prob > F = 0.7756
current account balance (%GDP)	Prob > F = 0.8619
bureaucracy quality	Prob > F = 0.0943*
control of corruption	Prob > F = 0.5053
government stability	Prob > F = 0.1163
law order	Prob > F = 0.8896
risk for exchange rate stability	Prob > F = 0.5678
investment profile	Prob > F = 0.1456

Source: Author's calculations using the Jann (2008) test for non-linearities. *, **, and *** refers to the statistical significance of the coefficient at the 10%, 5% and 1% levels of confidence. FD refers to variables in first differences.

H0: the predictor follows a linear model.

Test results show that only the stock of FDI and secondary completion rates seem to exhibit statistically significant non-linear interactions with FDI, which does not invalidate our main linear regression results. In any case, it is worth noting that the simple tests we have performed here with macro-level data are not sufficient to fully test the hysteresis under uncertainty approach presented in section 2.2.3. To thoroughly assess this framework in the case of FDI in Latin America, it would be interesting to carry out additional research exploring the exchange rate volatility-FDI decision relationship from a micro point of view using customized surveys for a controlled sample of multinationals investing in the region.

2.3.3.2. *Using an alternative GMM approach*

Now, in contrast to our original specification (i) presented in section 2.3.1, we suppose that the dependent variable is conditioned by its past values and that there is an unobservable effect (φ_i) correlated to the lag of the dependent variable (y_{it-1}).

$$(ii) \quad y_{it} = \varphi_i + \sum_{j=1}^n \beta_0 y_{it-j} + \beta_1 x_{it} + v_i + e_{it}$$

The presence of the lagged dependent variable among the regressors in equation (ii) leads to the autocorrelation of the error term with the lagged dependent variable and to heterogeneity, which results in inconsistent standard errors in the estimations (Arellano and Bond, 1991; Judson and Owen, 1999). Arellano and Bond (1991) build a Generalized Method of Moments (GMM) difference estimator that uses lagged values of the explanatory variables as instruments and thus considers potential endogeneity problems in the regressors. This model should be used to estimate first differences, where Δ is a vector of endogenous variables:

$$(iii) \quad \Delta y_{it} = \Delta \beta_0 y_{it-1} + \Delta \beta_1 x_{it} + \Delta \beta_2 w_{it} + \Delta e_{it}$$

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In general, we use both GMM-type instruments (as described in in Arellano and Bond, 1991) using only lag 2, and the first difference of all the different exogenous variables (as standard instruments), to have roughly thirty to forty instruments. Following on STATA manual, *<<GMM-type instruments use the lags of a variable to contribute multiple columns to the xtabond – Arellano-Bond linear dynamic panel data instrument matrix, whereas each standard instrument contributes one column to the instrument matrix>>*. In some cases, such as specification VII, we allow GMM-type instruments using lags 2 and 3. System GMM specifications (XII and XIII) allow for a higher number of instruments, as they include GMM-type ones both in the differenced equation and the level equation.

To check whether the dependent variable is related to lagged FDI inflows and to take potential endogeneity into account, we depart from equation (iii) and use the Arellano and Bond (1991) one-step GMM estimator, including at least one instrument per variable¹⁰ (see results in columns VI and VII, table 2.3-3). Note that following estimation, the p-value for the Sargan test using either one or two lags of the dependent variable is always <0.05 , which leads us to reject the null hypothesis that over-identifying restrictions are valid. In this case, two different things may be occurring: (a) the equations may be insufficiently over-identified or (b) the presence of heteroskedasticity may make the rejection of the null under the Sargan test more likely.

In response to (a), following Montero (2010), we use the two-step estimator developed by Arellano and Bond (1991), as presented in specifications VIII and IX. We also perform a regression (X) with a robust version of the estimator because the computing software indicates that the standard errors may be biased in VIII and IX. Another problem we face is that the AR(1) test of first-order residual autocorrelation presents a p-value >0.05 in specifications IX and X, which implies that in contrast to the desired result, we cannot reject the hypothesis that there is no autocorrelation in the first order differences.

In this context, it seems that the most reasonable way to proceed is to use the one-step estimator but with robust standard errors, which would also help us to address the potential heteroskedasticity problem mentioned above in (b). In this case, for specifications XI and XII, the AR(1) and AR(2) tests point to an autocorrelation in the first-order differences but not in the second-order differences, which implies that our estimator is adequate. If we compare the results in specification XII with those presented in the previous subsection under fixed effects (V), it is possible to observe that the coefficients for trade openness and current account balance remain highly significant and present the same sign. Those associated with investment profile, short-term debt levels, government stability and law and order are not significant when estimated by

the GMM, which is more efficient than the OLS and GLS and tends to reduce the confidence interval.

At this point, it is worth noting that there is no theoretical foundation to use GMM in a model in which we use the stock of FDI as a proxy of the initial level (as the one presented in section 2.3.1). GMM is justified only if we understand that FDI inflows in a given year depend on the amount of FDI received in the previous year, a case in which we would need to include the lagged FDI flows among explanatory variables; however, unlike GDP growth, for example, FDI flows do not necessarily depend on previous investment levels, and they are usually relatively unpredictable, with volatility caused by the presence or absence of large operations. In addition, GMM dynamic estimation was designed for “small T, large N” panels, while in our case we count with a balanced panel of intermediate size (19 countries, 21 periods), in which GMM may not necessarily work better than fixed-effects (Roodman, 2009:128). For these reasons, we stick to our Fixed Effects estimation (Table 2.3-1) as the most suitable in this experiment.

Table 2.3-3. Estimation results using the Generalized Method of Moments (GMM).

	VI	VII	VIII	IX	X	XI	XII
	Abond	Abond	Abond	Abond	Abond	Abond	Abond
	1-step	1-step	2-step	2-step	2-step	1-step	1-step
					Robust	Robust se	Robust se
lag1 fdi inflows	0.292*** (3.37)	0.143 (1.58)	0.230** (3.04)	-0.136 (-0.53)	-0.136 (-0.47)	0.269* (2.50)	0.151 (1.83)
lag2 fd inflows	0.00655 (0.1)	-0.0991 (-1.40)					-0.0657 (-1.31)
gdp per capita	0.000392 (0.68)	-0.000499 (-0.81)	0.000219 (0.81)	0.00672* (2.19)	0.00672 (1.74)	-0.00058 (-1.40)	-0.000177 (-0.38)
trade openness	0.0542*** (3.62)	0.0626*** (4.30)	0.0497*** (4.86)	0.105** (2.65)	0.105* (2.38)	0.0582*** (5.22)	0.0695*** (5.95)
gdp per capita growth	-0.0121 (-0.36)	-0.00829 (-0.26)	0.0159 (0.81)	0.0151 (0.55)	0.0151 (0.50)	0.00586 (0.21)	-0.0148 (-0.55)

continues in the next page →



	VI	VII	VIII	IX	X	XI	XII
	Abond	Abond	Abond	Abond	Abond	Abond	Abond
	1-step	1-step	2-step	2-step	2-step	1-step	1-step
					Robust	Robust se	Robust se
inflation	-0.000431 (-0.12)	-0.000419 (-0.12)	-0.000922 (-1.64)	0.00168 (0.71)	0.00168 (0.61)	-0.00029 (-0.45)	-8.14E-05 (-0.07)
interest nominal	0.0001 (0.07)	0.0002 (0.12)	0.0003 (1.13)	-0.0015 (-1.27)	-0.0015 (-1.06)	0.0001 (0.27)	0.0000 (-0.01)
mobile phones	-0.0152 (-1.77)	0.00266 (0.25)	0.00959 (0.76)	0.0472 (1.07)	0.0472 (1.27)	0.00138 (0.20)	-0.00145 (-0.18)
secondary completion	2.464 (0.34)	-4.803 (-0.63)	-42.61 (-1.23)	-336.7** (-2.85)	-336.7** (-2.70)	-2.952 (-0.77)	-4.334 (-0.84)
short term debt to reserves	-0.00336 (-1.42)	-0.00228 (-1.00)	-0.00291 (-1.52)	-0.0138* (-2.04)	-0.0138 (-1.63)	-0.0025 (-1.11)	-0.00135 (-0.56)
current account balance (%GDP)	-0.119** (-2.86)	-0.120** (-2.96)	-0.0706** (-2.70)	0.102 (0.58)	0.102 (0.47)	-0.0995*** (-3.53)	-0.137*** (-3.91)
bureaucracy quality		0.383 (0.88)		-21.44 (-0.88)	-21.44 (-0.70)	0.149 (0.40)	0.298 (0.75)
control of corruption		0.0829 (0.28)		0.767 (0.47)	0.767 (0.49)	-0.144 (-0.62)	0.193 (0.75)
government stability		0.253* (2.51)		0.176 (0.54)	0.176 (0.60)	0.194 (1.26)	0.266* (1.96)
law order		0.372 (1.29)		-7.489* (-2.02)	-7.489 (-1.80)	0.269 (1.16)	0.339 (1.28)
risk for exchange rate stability		0.0112 (0.13)		-0.248 (-0.73)	-0.248 (-0.63)	0.0335 (0.47)	-0.0101 (-0.12)
DR CAFTA dummy		-0.0846 (-0.10)		2.227 (0.56)	2.227 (0.51)	-0.0156 (-0.06)	-0.209 (-0.46)
investment profile		0.163 (1.42)		3.828 (1.14)	3.828 (0.94)	0.0874 (0.72)	0.158 (1.56)
constant	-2.674 (-1.30)	-4.087 (-1.86)	5.131 (1.10)	56.90* (2.33)	56.90* (2.16)	-2.328 (-1.32)	-5.741* (-2.55)
N	296	296	313	313	313	313	296
Sargan "p"	0.0103	0.0104	0.8957	0.9999	-	-	-
AR(1) "p"	-	-	0.0144	0.3517	0.4084	0.007	0.0068
AR(2) "p"	-	-	0.8466	-	-	0.7156	0.7848
Wald chi2 "p"	0	0	0	0	0	0	0
Instruments	46	53	29	36	36	36	70

Source: Author's calculations. *, **, and *** refers to the statistical significance of the coefficient at the 10%, 5% and 1% levels of confidence

2.3.3.3. Using smoothed series

A distinguishing feature of FDI inflows is that they tend to be quite volatile across time. We also observe that most of the institutional variables used in this study are persistent over time; thus, the use of annual observations may not be a good choice. In order to mitigate potential distortions in our results, we have alternatively smoothed the FDI inflows series (dependent) (see specifications XIII and XIV in Appendix B, section 2.8), regressed over consecutive and non-overlapping periods of three years (XV), and used 3-years mobile averages (XVI and XVII). Overall, the stock of FDI, trade openness, current account balance, government stability and investment profile remain significant determinants of FDI.

In addition, it could be argued that the evolution of institutional variables for each country could be highly interrelated, and it would be sufficient to test the influence of just one or two institutional indexes on FDI inflows. Following Jong-a-Pin (2009), we perform factor analysis to generate two institutional indexes that compile ICRG variables. However, factorial solutions are not satisfactory enough to integrate the informative content of ICRG variables, as the communalities of certain variables (changing across different periods and political cycles) show high information losses when using two factors. In addition, the common variance when using two factors would be barely over 50%. For these reasons, we have decided to keep all the six ICRG institutional variables in our regressions.

2.3.3.4. Introducing subsamples

Finally, given the widely acknowledged heterogeneity across Latin American countries, the presence of sub-regions, and potential distortions caused by the crises of the early nineties and the global slowdown of 2009, we select a series

of subsamples, in order to leave aside potential outliers and structural breaks and test the robustness of our results.

In this sense, we have excluded the crisis period (specifications XX and XXI), excluded the early nineties, when a number of Latin American countries still suffered from high macroeconomic and political instability (XXII), considered only the largest eight Latin American countries (with population over 15 million, in XXIII and XXIV), excluded Argentina, Bolivia, Ecuador and Venezuela as institutional outliers (XXV), and regressed only for Central American countries (XXVI). Results are displayed in Table 2.8-4 (see Appendix B). In general, capital stock of FDI, trade openness, and current account balance are consistently significant. Short term debt and some of the institutional variables are barely significant in some of the specifications.

2.4. FDI policies in Latin America

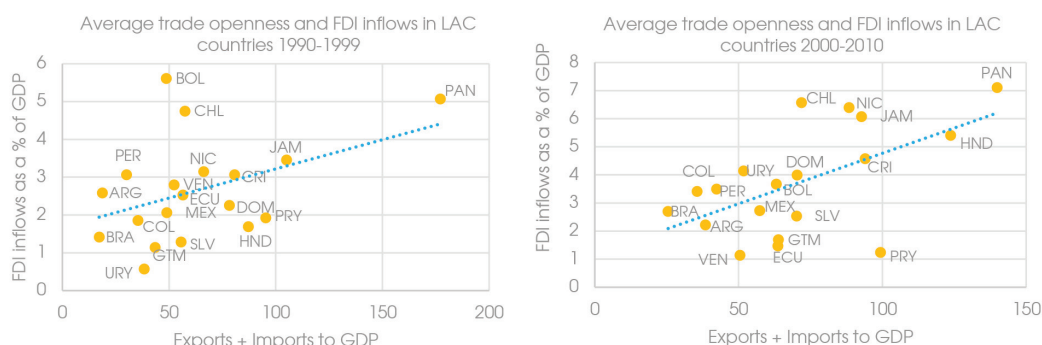
Next, we compare the Latin American countries studied here with respect to the dimensions identified as relevant factors for FDI attraction in the previous econometric analysis. This section uses the results presented above to understand the dynamics of the region and establish a basis for elaborating some implications for policy makers.

First, most Latin American countries have improved in FDI attraction over the last decade compared to the levels observed in the 1990s (Figure 2.4-1). Only Venezuela, Bolivia, Ecuador, Paraguay and Argentina received less foreign direct investment flows during the 2000s than during the previous decade (in terms of GDP). As we will argue, this behavior may be related to changes in the institutional setting in those countries and to the increased expropriation risk during the last decade, among other factors.

In the 1990s, the three top-performing countries in the region attracted

FDI amounting to more than 4% of GDP (Bolivia, Panamá and Chile). In the 2000s, seven countries reached that level: Panamá, Chile, Nicaragua, Jamaica, Honduras, Costa Rica and Uruguay. Guatemala and Paraguay have traditionally struggled to gain attention from foreign investors. It is worth observing the large heterogeneity in FDI attraction among Central American countries, with Panamá and Costa Rica among the top performers, whereas El Salvador and Guatemala receive little investment.

Figure 2.4-1. Country comparison. Trade openness and FDI inflows in Latin America.



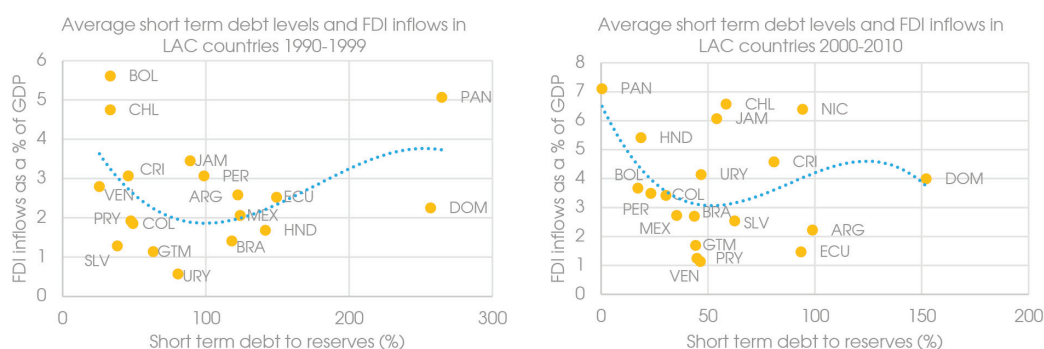
Source: Author's calculations

Second, we consider the dimension of trade openness. In the 2000s, Latin American countries were slightly more open to foreign trade than in the 1990s. Except for Panamá, exports plus imports over total GDP have significantly increased in all Central American countries (excluding Mexico), which may partly explain the notable increase in FDI attraction observed in Central America over the last decade.

Latin American countries have succeeded in reducing their short-term debt levels, which may have helped to attract foreign investors in some cases. This is the case for Nicaragua, which was the most indebted country in the world on a per capita basis in the 1990s and has since been able to significantly reduce public debt and increase FDI inflows. Honduras was also able to reduce short-

term debt to reserve levels from an average of 141% in the 1990s to 18% in the 2000s. However, the relationship between debt levels and FDI attraction is not clear-cut. The most indebted country over the last decade in terms of short-term debt to reserves is the Dominican Republic (152%), which apparently is not a “poor performer” in FDI; nevertheless, it may be receiving investment flows below its potential. This may also be the case for Argentina and Ecuador.

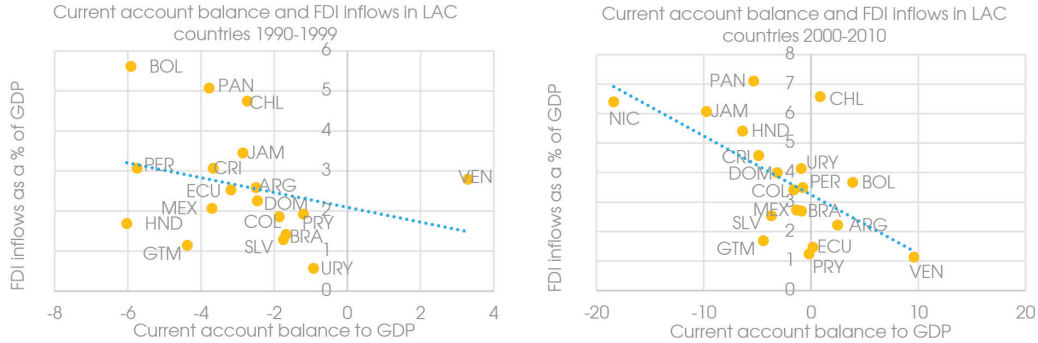
Figure 2.4-2. Country comparison. Short-term debt levels and FDI inflows in Latin America.



Source: Author's calculations

Maintaining relatively large current account deficits, even if not commonly advisable, seems to favor an increase in FDI inflows, as highlighted by the regional literature and tested in the econometric exercise presented in this chapter. Because they are not commodity exporters, most Central American countries maintain structural current account deficits of approximately 5% of GDP. On the other extreme, Venezuela maintained an average current account surplus of 9.6% of GDP during the 1990s. Commodity exporters generally tend to suffer from pressures resulting from currency appreciation and internal inflation, which may discourage foreign investors to a certain extent. Under these circumstances, policymakers would need to make credible monetary policy commitments to mitigate the risks associated with exchange rate variability and increasing inflation.

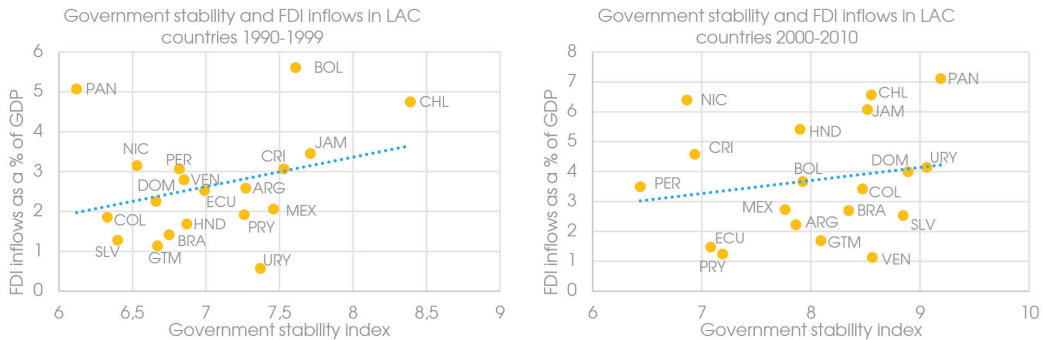
Figure 2.4-3. Country comparison. Current account balance and FDI inflows in Latin America.



Source: Author's calculations

Government stability, understood as the government's ability to carry out its declared program and its ability to stay in office, has significantly improved in most Latin American countries over the past 20 years, and this is likely to have had a positive impact on FDI flows to the region. The Dominican Republic and El Salvador are two economies that have taken advantage of increased government stability over the last decade to appeal to foreign investors. However, it should be noted that government stability may not significantly contribute to increased FDI attraction if there are substantial changes to the rules of the game or if the policies implemented are not always investor-friendly, as may be the case for Venezuela. Thus, it may be a necessary but not sufficient condition.

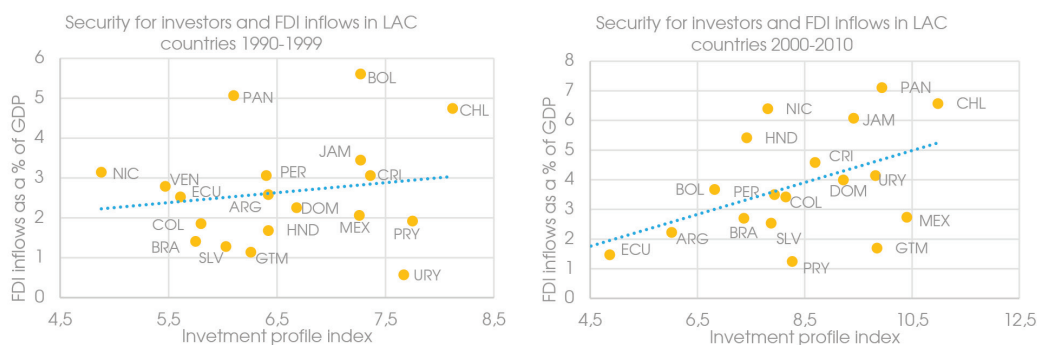
Figure 2.4-4. Country comparison. Government stability and FDI inflows in Latin America.



Source: Author's calculations

To briefly analyze this issue, we consider the investment profile index, which assesses the stability of the investment framework and the risk of expropriation in the various economies. Venezuela, Ecuador, Bolivia and Argentina have allegedly suffered from deterioration in their investment profiles over the last decade, which may partly help explain why they have received a lower level of FDI inflows than during the 1990s. On the other hand, most of those countries that have significantly improved their investment framework and have reduced the risk of expropriation (compared to the 1990s) have been able to somewhat improve their ability to attract FDI inflows. This has been the case for Panama, Nicaragua, the Dominican Republic, Jamaica and Colombia.

Figure 2.4-5. Country comparison. Investment profile and FDI inflows in Latin America.

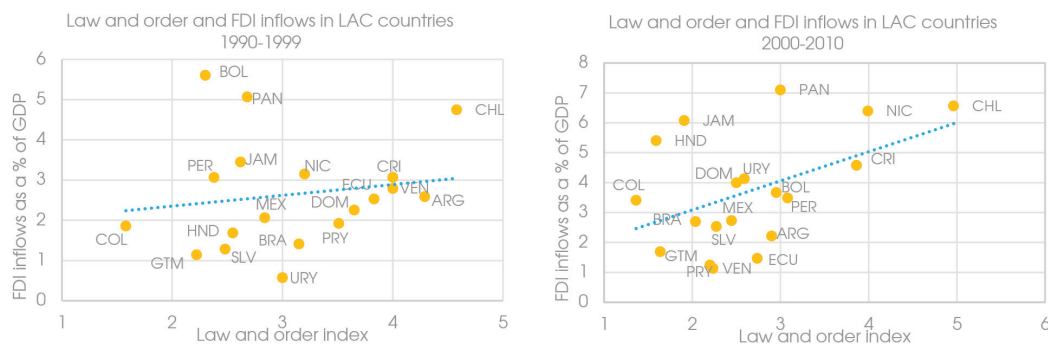


Source: Author's calculations

Finally, keeping the abovementioned caveats in mind, the law and order index may still be a good proxy for the quality and enforceability of the legal framework in Latin American countries. Interestingly, the only countries with higher law and order indices in the 2000s than in the 1990s were Bolivia, Chile, Nicaragua, Panama and Peru. Peru and Bolivia were not successful in increasing FDI inflows over the last decade, but Panama, Nicaragua and Chile are among the region's top performers. This suggests that enforcing and maintaining law and order may have a positive effect on FDI attraction, but it is not per se a

sufficient requirement to appeal to foreign investors. The overall worsening in the law and order index observed for Latin America over the last 20 years may have kept increases in FDI inflows to the region below their potential.

Figure 2.4-6. Country comparison. Investment profile and FDI inflows in Latin America.

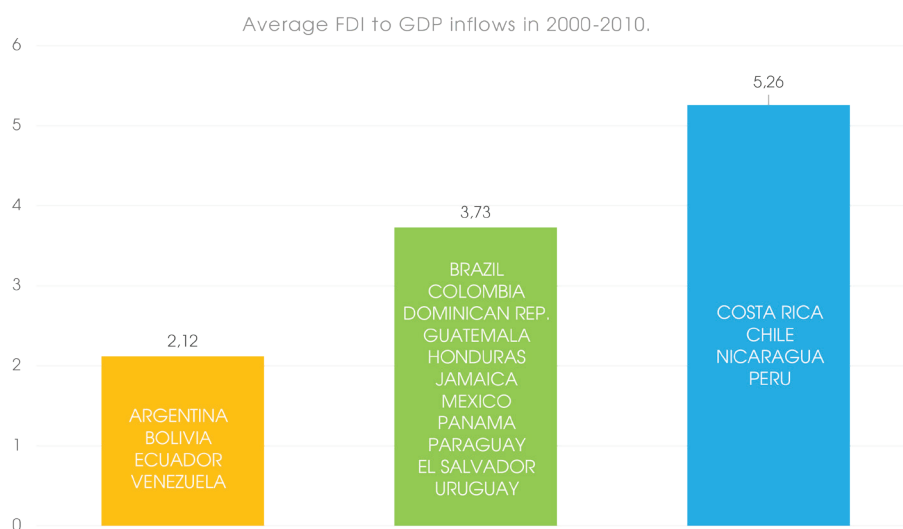


Source: Author's calculations

On the institutional side, we also wonder which Latin American countries are most similar in terms of the following governance indicators (which were significant in at least some of the regressions): government stability, investment profile and law and order. Hierarchical cluster techniques under the Ward method using standardized Z scores are applied to our selection of 19 countries. The first group, characterized by average levels of government stability, strongly declining law and order indicators with respect to the 1990s and the lowest investment profile indices of the region, consists of Argentina, Bolivia, Ecuador and Venezuela. This group presents low FDI to GDP levels by regional standards (2.12% on average).

At the other extreme, Costa Rica, Chile, Nicaragua and Peru present certain institutional similarities. Although they enjoy diverse degrees of governmental stability, this group of countries exhibits above-average investment profile indices and very high law and order ratings. Their average FDI to GDP level (5.26%) is well above the regional mean.

Figure 2.4-7. Latin American country clusters by similarity of institutional indicators. 2000-2010.



Source: Author's calculations

A more detailed study of the institutional arrangements and the investment framework in these four countries would be needed to determine their similarities and best practices, which could help other countries in the region to enhance their appeal to foreign investors. However, this is beyond the scope of this article, which simply intends to identify the relevant determinants of FDI attraction in Latin America over the last two decades to frame a more complex discussion: the policy-making of FDI attraction. Nevertheless, from this section, it is still possible to determine a series of tentative and general policy implications:

- Latin American economies may enhance their appeal to foreign investors by increasing their degree of trade openness. In this article, free-trade agreements such as the DR CAFTA and tariff decreases have not proven to be per se significant determinants of FDI. Nonetheless, it can be argued that because FTAs and external tariff decreases contribute to increased trade flows and foster regional integration, they can facilitate a greater degree of trade

openness and thus indirectly attract foreign investors.

- Latin American countries are more likely to attract larger FDI inflows by reducing their exposure to short-term debt, which is often linked to higher volatility. This would have been the case for Nicaragua and Honduras, whereas the Dominican Republic seems to be an exception. Argentina and Ecuador could benefit from this practice.

- There is also some evidence that institutional variables such as the degree of government stability, law and order and investment profile (related to expropriation risk) influence FDI attraction. Countries such as Argentina, Bolivia, Ecuador and Venezuela, in which the investment framework has become less stable and law enforcement has deteriorated over the last decade, have lost the favor of foreign investors. At the other extreme, Nicaragua and Peru have been able to improve their institutional setting compared with that in the 1990s and to regain a certain degree of political stability, thus becoming relatively successful FDI performers. These findings have implications from a risk-management perspective because certain international investors are risk-averse and would require guarantees (such as those provided by MIGA¹¹) to hedge from sovereign and political risks prior to making investment decisions.

11.

Multilateral Investment
Guarantee Agency.

- Additionally, although we have not been able to fully test it in our model, the hysteresis under uncertainty approach presented in section 2.2.3 (Pissarides, 2001; Belke et al., 2005) suggests that Latin American institutions may also have an insurance role in the context of switching investment costs (due to exchange rate variability or institutional instability, among other factors). For instance, capital market imperfections in certain Latin American countries may increase the perceived cost of entry for multinationals investing in those countries because the firms may be unable to recur to domestic bond issuances to finance or expand their subsidiary. Additionally, high firing costs or limitations on profit repatriation may be perceived as higher costs that may result in the postponement of entry (investment) and exit (disinvestment)

decisions. The first set of issues could be addressed by introducing unemployment subsidies and reducing private compensation payments (as suggested by Pissarides, 2001). In this sense, both institutions (rules) and public sector actors (e.g., regulators, investment attraction agencies) have important roles in addressing market imperfections and reducing uncertainty to prevent hysteresis in entrepreneurial decisions while simultaneously preserving a flexible business environment that appeals to foreign investors.

2.5. Conclusion

This article tries to identify the determinants of FDI in Latin America during the period 1990-2010 to understand which factors have contributed to the increase in FDI inflows observed since the mid-1990s and to account for differences in performance among the various countries.

To this end, we conduct a literature review presenting five theoretical approaches to foreign direct investment: the neoclassical theory of capital flows, the eclectic OLI paradigm, horizontal and vertical theories, recent risk-aversion approaches and institutional approaches. Drawing from these theories and from previous empirical evidence and concrete studies on FDI in Latin America, we identify three groups of factors that may influence FDI: endowments and infrastructure, macroeconomic variables and institutional and policy variables.

The results of the econometric analysis point to the previous stock of FDI, trade openness, low short-term debt levels, balance of payments deficits and government stability as the main (robust) determinants of foreign capital flowing to Latin America from 1990 to 2010. There is also some evidence that foreign entrepreneurs show a greater propensity to invest in countries with sound legal frameworks and low expropriation risks. Contrary to expectations,

the DR CAFTA agreement does not seem to have significantly increased FDI inflows to signing countries.

Applying hierarchical cluster techniques to the three institutional variables identified as relevant (government stability, investment profile, law and order), some of the top performers in FDI attraction over the last decade (Costa Rica, Chile, Nicaragua, Peru) are clearly grouped, as are some of the worst performers (Argentina, Bolivia, Ecuador, Venezuela). Decreasing expropriation risks and enhancing law enforcement in the latter group could help those countries to increase FDI inflows. In this sense, public institutions play critical roles in reducing uncertainty, which may lead to a postponement of foreign investment decisions or even the deviation of flows to more stable environments.

Finally, countries with high short-term debt levels need to try to reduce their exposure. Other general policy implications include the need to foster trade openness as an indirect way to contribute to regional FDI attraction.

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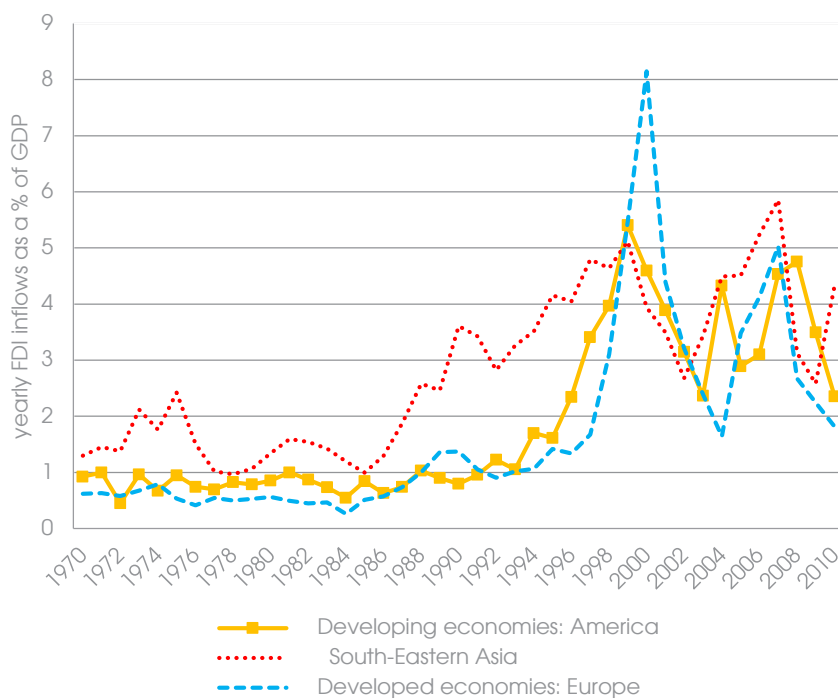
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2.7. Appendix A. Stylized facts on global and regional FDI flows

Figure 2.7-1. Evolution of FDI inflows by region.



Source: UNCTAD FDI database

Table 2.7-1. Evolution of average FDI stock in Latin American countries.

FDI stock as a % of GDP	1981-1990	1991-2000	2001-2005	2006-2010
Honduras	2.6	13.1	24.4	107.6
Panama	51.8	44.1	63.4	74.4
Jamaica	16.4	26.8	52.4	73.8
Chile	53.0	44.1	65.1	63.1
Nicaragua	5.4	18.1	48.3	62.5
Bolivia (Plurinational State of)	16.8	31.9	64.1	39.1
Costa Rica	16.8	14.8	23.6	36.0
El Salvador	9.0	7.0	21.5	31.0
Uruguay	7.0	6.1	13.7	29.7
Colombia	4.6	9.9	21.1	28.9
Mexico	5.2	11.7	24.6	28.8
Argentina	5.1	12.9	34.7	25.3
Peru	5.2	11.3	20.8	25.2
Dominican Republic	5.1	5.2	15.6	23.7
Brazil	11.2	11.7	22.2	21.8
Ecuador	8.7	22.4	29.6	21.2
Paraguay	6.7	12.2	17.7	17.4
Venezuela (Bolivarian Republic of)	3.9	19.3	38.6	16.2
Guatemala	16.2	18.6	18.5	14.2
Cuba	0.0	0.2	0.2	0.3
Latin America	9.0	14.2	30.7	31.2

Source: Author's calculations using the UNCTAD FDI database

2.8. Appendix B. Additional empirical results

Table 2.8-1. Co-integration and unit root tests results.

	Test	p-value	feature	1st diff p-value
Dependent fdi inflows	Levin-Lin-Chu	0.0005	Stationary	
unctad fdi stock	Im-Pesaran-Shin	0.999	Unit roots	0
gdp per capita	Levin-Lin-Chu	0.5645	Unit roots	0
trade openness	Im-Pesaran-Shin	0.8823	Unit roots	0
gdp per capita growth	Levin-Lin-Chu	0	Stationary	
inflation	Fisher-type based on ADF	0	Stationary	
interest nominal	Im-Pesaran-Shin	0	Stationary	
mobilephones	Levin-Lin-Chu	0.6332	Unit roots	0
secondarycompletion	Levin-Lin-Chu	0.417	Unit roots	0.0033
shorttermdebtto reserves	Levin-Lin-Chu	0.0001	Stationary	
currentaccount balance (%GDP)	Levin-Lin-Chu	0	Stationary	
bureaucracyquality	Levin-Lin-Chu	0	Stationary	
controlofcorruption	Levin-Lin-Chu	0.0057	Stationary	
governmentstability	Levin-Lin-Chu	0	Stationary	
riskforexchangeratestability	Levin-Lin-Chu	0.0002	Stationary	
investmentprofile	Levin-Lin-Chu	0	Stationary	
scientificarticlesperthousandpeo	Levin-Lin-Chu	0.9826	Unit roots	0
electricitylosses (%)	Levin-Lin-Chu	0.856	Unit roots	0

Source: Author's calculations

Table 2.8-2. Results under smoothed series.

	XIII	XIV	XV	XVI	XVII
	Smoothed	Smoothed	3 year per	3 year ma	3 year ma
	Fixed	Fixed	Fixed	Fixed	Random
unctad fdi stock	0.115*** (11.42)	0.0432*** (8.42)	0.0326** (3.16)	0.0423*** (6.41)	0.0407*** (6.43)
gdp per capita	0.000488 (1.75)	0.000376 (1.88)	0.000272 (0.67)	0.000284 (1.14)	0.000264 (1.87)
trade openness	0.0185** (2.96)	0.0173** (2.87)	0.0350* (2.49)	0.0391*** (5.18)	0.0261*** (4.38)
gdp per capita growth	-0.00948 (-0.42)	-0.00604 (-0.30)	0.119 (1.83)	0.118*** (3.54)	0.125*** (3.83)
inflation	-0.000149 (-0.81)	0.0000381 (0.20)	-0.00015 (-0.21)	0.0000374 (0.07)	0.0000124 (0.02)
interest nominal	-0.0000893 (-0.60)	-0.000179 (-1.20)	-0.0000479 (-0.09)	-0.000154 (-0.42)	-0.000158 (-0.44)
mobile phones	-0.0099 (-1.79)	0.0000 (0.01)	-0.0039 (-0.47)	-0.0033 (-0.66)	-0.0035 (-0.83)
secondary completion	-5.707 (-1.66)	-1.76 (-0.65)	-0.0576 (-0.01)	-0.0396 (-0.01)	1.88 (0.68)
short term debt to reserves	-0.00176 (-1.84)	-0.000983 (-0.98)	-0.00257 (-1.07)	-0.00257 (-1.85)	-0.00203 (-1.54)
currentaccount balance (%GDP)	-0.176*** (-8.30)	-0.106*** (-5.45)	-0.235*** (-4.46)	-0.258*** (-9.40)	-0.234*** (-9.49)
scientific articles per 1000	16.83 (1.17)				
electricity losses (%)	-0.00893 (-0.39)				
bureaucracy quality		-0.00509 (-0.03)	0.046 (0.13)	0.035 (0.18)	0.128 (0.69)
corruption		0.00876 (0.07)	-0.0451 (-0.17)	0.0258 (0.18)	0.0548 (0.40)
government stability		0.237*** (4.83)	0.293* (2.43)	0.329*** (5.25)	0.317*** (5.20)
law order		0.275* (2.31)	0.232 (0.84)	0.284 (1.90)	0.252 (1.82)
risk for exchange rate stability		-0.0707 (-1.47)	-0.16 (-1.27)	-0.136* (-2.00)	-0.129 (-1.93)

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	XIII	XIV	XV	XVI	XVII
	Smoothed	Smoothed	3 year per	3 year ma	3 year ma
	Fixed	Fixed	Fixed	Fixed	Random
DRCAFTA		0.211 (0.58)	0.323 (0.40)	0.256 (0.57)	0.447 (1.03)
investment profile		0.272*** (4.93)	0.235 (1.92)	0.196** (2.88)	0.183** (2.83)
_cons	-1.917 (-1.80)	-4.378*** (-5.19)	-4.723** (-2.67)	-5.841*** (-5.64)	-5.196*** (-5.78)
N	290	342	117	316	316
Overall R-square	0.4757	0.5493	0.547	0.5405	0.5856
Hausman p-value	0.00	<0	0.00	0.33	0.33

Source: Author's calculations. *, **, and *** refers to the statistical significance of the coefficient at the 10%, 5% and 1% levels of confidence

Table 2.8-3. Logarithmic transformations of selected variables.

	XVIII	XIX
Dependent: log of FDI inflows	logs	logs
	Fixed	Fixed
ln unctad fdi stock	0.478*** (4.73)	0.397*** (3.97)
ln gdp percapita	-0.979 (-1.87)	-1.413* (-2.42)
ln openness	1.132*** (4.93)	1.301*** (5.60)
ln gdp per capita growth	-0.00523 (-0.48)	0.00335 (0.31)
inflation	-0.00037 (-1.30)	-0.000246 (-0.88)
ln interest	-0.184* (-2.23)	-0.223** (-2.78)
ln mobile phones	-0.0405 (-1.03)	0.0096 (0.21)

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	XVIII	XIX
Dependent: log of FDI inflows	logs	logs
	Fixed	Fixed
In secondary completion	-0.386 (-1.31)	-0.494 (-1.61)
In short term debt	-0.0314 (-0.56)	0.0173 (0.31)
current account balance (%GDP)	-0.0754*** (-7.00)	-0.0539*** (-4.75)
In scientific articles per 1000		
In electricity losses (%)		
In bureaucracy quality		-0.0565 (-0.30)
In corruption		0.417* (2.51)
In government stability		0.425* (2.29)
In law order		0.501** (2.67)
In risk for exchange rate stability		-0.164 (-1.10)
DRCAFTA		0.463** (2.81)
In investment profile		0.486** (2.65)
_cons	2.44 (0.59)	2.722 (0.58)
N	277	277
R2	0.1427	0.1374
Hausman	0.00	0.00

Source: Author's calculations. *, **, and *** refers to the statistical significance of the coefficient at the 10%, 5% and 1% levels of confidence

Table 2.8-4. Results of different subsamples.

	XX	XXI	XXII	XXIII	XXIV	XXV	XXVI
	1990-2007	1990-2007	1995-2010	LAC8	LAC8	No outliers	Central America
	Fixed	Fixed	Fixed	Fixed	Random	Fixed	Random
unctad fdi stock	0.0989*** (6.64)	0.0983*** (6.25)	0.0268** (3.27)	0.0817*** (4.19)	0.0646*** (3.86)	0.0222** (2.97)	0.0114 (1.16)
gdp per capita	0.000491 (1.19)	0.00031 (0.73)	0.000286 (0.76)	0.000557 (1.45)	0.0000401 (0.51)	0.000737* (2.17)	0.000166 (0.47)
trade openness	0.0287** (3.09)	0.0348*** (3.67)	0.0610*** (5.20)	0.0463* (2.06)	0.000207 (0.02)	0.0413*** (5.18)	0.0309* (2.51)
gdp per capita growth	0.0372 (1.10)	0.041 (1.26)	0.0236 (0.67)	0.0184 (0.65)	0.0371 (1.32)	0.0649 (1.87)	0.186* (2.39)
inflation	-0.000111 (-0.40)	0.000057 (0.21)	0.0172 (1.30)	-0.0000859 (-0.40)	-0.0000902 (-0.41)	-0.0000875 (-0.35)	0.0413 (1.09)
interest nominal	-0.0000542 (-0.24)	-0.000221 (-1.02)	-0.0131 (-0.70)	-0.00015 (-0.87)	-0.0000484 (-0.28)	-0.0000125 (-0.06)	-0.0545 (-0.82)
mobile phones	-0.0108 (-1.32)	0.0009 (0.09)	-0.0009 (-0.13)	-0.0142 (-1.92)	-0.0122* (-2.33)	0.0008 (0.13)	0.0002 (0.03)
secondary completion	-4.991 (-0.98)	-10.23 (-1.94)	-8.129 (-1.47)	-2.466 (-0.43)	4.136 (1.81)	-3.479 (-0.80)	2.079 (0.14)
short term debt to reserves	-0.00309* (-2.17)	-0.00217 (-1.47)	-0.00376 (-1.25)	-0.0000472 (-0.02)	-0.00293 (-1.60)	-0.00398** (-2.88)	-0.00639** (-2.76)
current account balance (%GDP)	-0.215*** (-6.85)	-0.171*** (-5.37)	-0.232*** (-6.31)	-0.108** (-2.88)	-0.0950** (-2.79)	-0.159*** (-4.65)	-0.153* (-2.55)
scientific articles per 1000	19.91 (0.93)						
electricity losses (%)	-0.00354 (-0.10)						
bureaucracy quality		-0.333 (-1.24)	-0.623 (-1.52)	-0.911* (-2.38)	-0.519* (-2.23)	-0.115 (-0.41)	0.272 (0.56)
control of corruption		0.279 (1.35)	0.201 (0.97)	0.162 (0.72)	0.0314 (0.15)	-0.0948 (-0.50)	-0.00254 (-0.01)
government stability		0.215** (2.80)	0.146 (1.67)	0.105 (1.41)	0.0965 (1.30)	0.191* (2.27)	0.0339 (0.19)
law order		0.317 (1.65)	0.177 (0.79)	0.472** (2.71)	0.211 (1.51)	0.0522 (0.26)	0.272 (0.80)
risk forex change rate stability		-0.0381 (-0.50)	-0.0298 (-0.35)	0.022 (0.35)	0.0385 (0.58)	-0.064 (-0.73)	0.347 (1.54)

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	XX	XXI	XXII	XXIII	XXIV	XXV	XXVI
	1990-2007	1990-2007	1995-2010	LAC8	LAC8	No outliers	Central America
	Fixed	Fixed	Fixed	Fixed	Random	Fixed	Random
DR CAFTA dummy		-0.00885 (-0.01)	0.151 (0.27)	.	.	-0.187 (-0.39)	0.198 (0.28)
investmentprofile		0.154 (1.75)	0.357*** (3.80)	0.101 (0.99)	0.133 (1.69)	0.125 (1.28)	-0.169 (-0.78)
constant	-2.419 (-1.53)	-4.775** (-3.20)	-4.892* (-2.41)	-4.014* (-2.52)	-0.645 (-0.62)	-4.139** (-3.10)	-3.940* (-2.31)
N	290	290	262	147	147	259	106
Overall R-square	0.3598	0.371	0.3174	0.1261	0.4323	0.4432	0.4477
Hausman p-value	0.02	<0	0.00	0.97	0.97	0.00	0.71

Source: Author's calculations

Table 2.8-5. Definition of variables and data sources.

Variable	Definition	Source
unctad fdi in flows	FDI inflows and outflows comprise capital provided (either directly or through other related enterprises) by a foreign direct investor to a FDI enterprise, or capital received by a foreign direct investor from a FDI enterprise. FDI includes the three following components: equity capital, reinvested earnings and intra-company loans. Data on FDI flows are presented on net bases (capital transactions' credits less debits between direct investors and their foreign affiliates).	UNCTAD
unctad fdi stock	Foreign direct investment (FDI) is defined as an investment involving a long-term relationship and reflecting a lasting interest in and control by a resident entity in one economy (foreign direct investor or parent enterprise) of an enterprise resident in a different economy (FDI enterprise or affiliate enterprise or foreign affiliate). FDI stock is the value of the share of their capital and reserves (including retained profits) attributable to the parent enterprise, plus the net indebtedness of affiliates to the parent enterprises.	UNCTAD
gdp per capita	GDP per capita (constant 2005 US\$)	WDI
trade openness	It is measured as the exports plus the imports divided the GDP of one particular country in a given year	World Development Indicators (WDI)
gdp per capita growth	Annual percentage growth rate of GDP per capita based on constant local currency. Aggregates are based on constant 2005 U.S. dollars.	WDI

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Variable	Definition	Source
inflation	Inflation as measured by the consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services	WDI
interest nominal	Lending rate is the bank rate that usually meets the short- and medium-term financing needs of the private sector.	WDI
mobile phones	Mobile cellular subscriptions (per 100 people)	WDI
secondary completion	Percentage of Complete Secondary Schooling Attained in Population	Barro and Lee (2010)
short term debt to reserves	Short-term debt includes all debt having an original maturity of one year or less and interest in arrears on long-term debt. This is divided by total reserves (including gold)	WDI
current account balance (%GDP)	Current account balance as % of GDP is the sum of net exports of goods and services, net primary income, and net secondary income, divided by GDP	WDI
scientific articles per 1000	Refers to the number of scientific and engineering articles published in a number of fields, in a given country and year	WDI
electricity losses (%)	Includes losses in transmission between sources of supply and points of distribution and in the distribution to consumers, including pilferage.	WDI
bureaucracy quality	To what extent bureaucracy is autonomous from political pressure and has an established mechanism for recruitment and training. (1-4 scale).	PRS Group, ICRG www.prsgroup.com
control of corruption	A measure of the ability to control both actual and potential corruption, including patronage, nepotism, etc. 1-6 scale).	PRS Group, ICRG www.prsgroup.com
government stability	This is an assessment both of the government's ability to carry out its declared program(s), and its ability to stay in office. (1-12 scale).	PRS Group, ICRG www.prsgroup.com
law order	The Law sub-component is an assessment of the strength and impartiality of the legal system, while Order deals with popular observance of the law. (1-6 scale).	PRS Group, ICRG www.prsgroup.com
risk for exchange rate stability	The appreciation or depreciation of a currency against the US dollar over a calendar year or the most recent 12-month period is calculated and compared in a table (see source). (0-10).	PRS Group, ICRG www.prsgroup.com
DR CAFTA dummy	Dummy variable with value 1 for the different DR-CAFTA members since the adoption of this Free Trade Agreement (2005 in most of the cases).	Authors' calculations
investment profile	This is an assessment of factors affecting the risk to investment, including risk of expropriation, repatriation of profits and payment delays. (1-12 scale).	PRS Group, ICRG www.prsgroup.com

Source: Author's elaboration

CHAPTER *#03*

DO FOREIGN MULTINATIONALS PREFER SOLO OR JOINT VENTURES IN LATIN AMERICA?

AN ANALYSIS OF THE MICROECONOMIC DETERMINANTS
OF FOREIGN ENTRY MODE USING ENTERPRISE SURVEY
DATA

3.1. Introduction

Multinational companies investing in Latin America and the Caribbean (LAC) face a challenging decision when they have to choose the location of its affiliates in a very fecund and dynamic region that has overall escaped from the 2009 crisis in relatively good shape. Among other crucial issues, managers have to decide between establishing a joint venture with a local partner (JV) or a wholly owned enterprise (WOE), to keep a higher degree of control. This choice seems to be especially relevant in the case of LAC, a region in which entrepreneurs report informality and institutions are an obstacle for doing business in a significantly higher proportion than in other parts of the world¹².

The foreign market entry decision implies that a foreign firm or

12.

Based on average World Bank Enterprise Survey respondent perception. Please, refer to Table 3.7 1 in Appendix C for detailed results.

multinational bundles its know-how, processes and other intangible assets with domestic factors such as human capital, distribution channels, information about the domestic market, etc. (Brouthers and Hennart, 2007). According to Hennart (2000), when the value of paying back dividends to the owner of each of the different inputs (internalizing the factors of production under a unique organization) is higher than having the different companies exchanging *ex ante* inputs through the market, a joint venture formula will be the preferred choice. The foreign market entry decision is not trivial, as has direct implications on the profitability of the subsidiary; for instance, according to Chang, Chung and Moon (2013), WOE's perform better than JVs in industries intense in research and development. The foreign market entry decision does not have to be confounded with the greenfield investment versus acquisition of a previously existing company choice, which, according to Brouther and Hennart (2007:399), is implicitly embedded in the first.

It is the aim of this paper to contribute to the literature on foreign market entry decision on the following ways: (i) showing empirical evidences from the recent worldwide World Bank Enterprise Surveys (firm level data), as a complement to the usual approach of country specific surveys of limited scope (for example, in recent papers, analysing a single Asian country is a predominant feature); (ii) combining and testing the different existing theories on the topic, thus presenting a larger set of hypotheses and dimensions to be analysed; and (iii) assessing entry mode decisions for foreign companies in Latin America, identifying distinctive determinants to draw evidence-grounded implications for policy makers and investors in the region.

Results from our empirical exercise show that counting with a foreign licensed technology has a large and highly significant impact on opting for a wholly owned enterprise when investing in LAC, but not in other part of the world. This constitutes a partial validation of the “ownership” component in the OLI Eclectic Paradigm (Dunning 1973; 1980), in the sense that

multinationals tend to protect their specific assets (in this case, a differentiated technology) from potential replication by avoiding joint venture formulas; this may be an especially important consideration in LAC, a region characterized by wide variability in the enforcement of property rights across countries. Another interesting result is that in those countries in which foreign entrepreneurs perceive that the courts are not fair, they opt for establishing JV in a higher proportion, probably to count with a local partner who may help them dealing with potential legal, idiosyncratic and regulatory barriers. Similarly, Joint Ventures formulas seem to be chosen when the company is in a destination country in which it has to make a higher degree of informal payments as total annual sales, and when the political environment is perceived as more instable. Finally, following the *knowledge capital model* (Markusen and Maskus, 1999), we distinguish between market seeking (horizontal) and export oriented (vertical) FDI; there is evidence that the higher the percentage of exports over total sales (a proxy for vertical FDI) and the percentage of inputs of foreign origin, the more likely is that the subsidiary takes the form of a wholly owned enterprise; this finding is confirmed both for LAC and non-LAC countries.

Our results have very relevant implications for managers of multinational companies and investors that are considering to enter in Latin America. Also, policymakers in the region may want to consider enhancing the legal framework for industrial property and guaranteeing the quality and reliability local supplies (quality certificates, better supply contract enforcement) in order to guarantee the conditions for foreign subsidiaries to develop greater backward linkages with the rest of the economy, and potential positive spillover effects.

The rest of this chapter is structured as follow: section 3.2 reviews the different strands of literature relevant for the foreign market entry mode discussion; section 3.3 presents some stylized facts derived from the analysis of the World Bank Enterprise Surveys we use; section 3.4 describes the methodology applied, the choice of variables and regression results; section 3.5

discusses policy implications and concludes.

3.2. The determinants of foreign market entry mode; theory and evidence

This section walks the reader through the literature analysing the foreign entry mode decision, which basically discusses the choice between joint venture and whole ownership for a multinational investing in a foreign country. Related strands of literature, which will not be extensively discussed here, deal with the establishment mode in foreign markets (greenfield investment versus acquisition; see, for instance, Dikova and van Witteloostuijn, 2007), the ex-post performance of foreign subsidiaries (Ma, Tong and Fitza, 2013) and their influence on industry profitability (Tong and Reuer, 2010), and the location determinants of foreign direct investment (FDI) (Amiti and Javorcik, 2008; Kang and Jiang, 2012).

In principle, it can be argued that the mode of entry in foreign markets would be a decision made on the basis of existing trade-offs between risks and returns. Exporting would be the first choice in a context of high risk or unknown foreign markets, as the company bears less sunk cost exporting than under foreign direct investment. Within FDI, opting for a joint venture is expected to help mitigating certain risks (given the presence of a local partner with experience in the host economy and lower initial investment), but may have associated lower returns (as potential profits are shared). On the other hand, whole ownership is usually a higher return, higher risk alternative. At the same time, those companies that have a comparative advantage in the form of a unique production processes or a differentiated technology (respect to competitors) would in principle be less prone to establishing joint ventures (to avoid potential imitation or reverse engineering), especially in those countries where there is weaker enforcement of property rights.

Originally, it was established in the organizational literature that resource availability in the destination market (access to finance, managerial capabilities) and operational control are also part of the mode of entry decision function (Stopford and Wells, 1972, in Agarwal and Ramaswami, 1992). Thus, the greater the degree of control the parent company would like to exert over systems and marketing in the host country (e.g. price and distribution strategies for the products), the more likely is that the preferred entry choice would be wholly owned enterprise over joint venture.

The OLI paradigm (Dunning, 1973; 1980) looks at the motivations trans-national companies have to invest abroad instead of just exporting their products. Dunning elaborated an eclectic framework that integrated the different existing theories and, more importantly, discusses how the inter-linkages between factors (such as the above mentioned) ultimately affect the mode of entry decision.

OLI stands for Ownership, Location and Internalization. *Ownership* advantages refer to the existence of firm-specific assets and knowledge-based assets such as patents, competitive management formulas, differentiated process organisation, or trademarks. These specific assets provide multinational companies with advantages over local companies in foreign markets to compete there. According to this framework, knowledge-intense industries would usually opt for a higher degree of ownership to maintain control (WOE preferred). Meyer, Wright and Pruthi (2009), in their resource based view of foreign entry, propose to complement this control dimension with resource augmentation: firms with geographically fungible comparative advantages and resources would prefer wholly owned greenfield investments, whereas firms for which local resources and host economy specific knowledge are more important would be more likely to use joint venture modes or tend to directly acquire local companies.

If core competences are geographically fungible, foreign investors may attain

competitive advantages in new locations with few additional local resources, and enter by a resource-exploiting mode. Firms with core competences based on location-specific competences prefer modes that access complementary local resources.

Second, *location* advantages such as different factor endowments, benefiting from positive externalities, or avoiding transportation costs or trade barriers, can be obtained by investing abroad. As abovementioned, the higher the market potential and the lower the investment risk is, the larger the participation of foreign capital in the affiliate would in principle be.

Finally, *internalisation* advantages are derived from theories of the firm: companies will be opting for market transactions or organization depending on existing transaction costs (Coase, 1960; Williamson, 1989). Exporting would in principle guarantee the parent company the possibility of reaching economies of scale, while avoiding the bureaucracy and procedures related to implementation; at the same, time, however, market imperfections and its implications, such as behavioural risk (e.g. wrong marketing mix choice by the importer when distributing the goods), may result in the need of elaborating costly contracts and monitoring systems to prevent undesired events (Agarwal and Ramaswami, 1992). If contractual risks are high, investment modes would be preferred over exporting or licensing, as the company can save transaction costs and minimize the risk of imitation or suffering reputational losses by directly locating in the target market. Thus, It could be expected that a WOE would be preferred over a JV in countries where enforcing contracts and property rights is more costly. At the same time, however, Agarwal and Ramaswami (1992) test the OLI framework for entry modes in the U.S. equipment leasing industry but they do not find that investment risks, product differentiation, and contractual risk have any bearing in the choice between JV and WOE, although the last two do have significant influence in the decision between exporting and investing. On the other hand, they find that larger

companies with longer international experience tend to prefer WOE over JV, especially when entering markets with high potential. Recently, Chen and Chang (2011) have confirmed most of the effects influencing mode of entry that were discussed by transaction cost theory, although their results do not confirm the contention that more experienced internationals opt for a WOE; they rather point to a dynamic “state dependency”, with firms only inclined to change their entry choice (from JV to WOE or vice versa) if they had a poor performance in the past.

A third wave of studies introduced the effects of institutions and cultural distance when assessing location and entry mode choices in foreign markets. The underlying reasoning is that managers and owners from different countries of origin may approach a similar foreign market entry decision from diverse perspectives (and with dissimilar degrees of risk aversion), as it can be broadly argued in line with the new Institutional Economics Literature (North, 1990). At the same time, the intrinsic distinguishing features of institutions in the host country will have a bearing on the degree of foreign ownership chosen.

Kogut and Singh (1988) pioneered the empirical assessment of the effect of cultural distance on entry modes, concluding that large cultural distance and uncertainty avoidance result in more propensity to constitute joint ventures. Brouthers (2002) also tested an extended theoretical model that added institutional and cultural considerations to transaction cost theory, and confirmed that MNEs opt for WOE when there are higher perceived contract negotiation and monitoring costs, as well as in host markets with low investment risks and few legal restrictions. Similarly, Tatoglu et al (2003) analyses the determinants for foreign ownership in Turkish manufacturing (wholly owned enterprise, joint venture), to find that cultural distance, diversification of parent-affiliate, and concentration ratio of Turkish industry seem to be strong determinants of foreign ownership level. The authors recommend Turkish policy makers to continue pursuing structural transformation and privatization

processes, although they recognize the unavailability of data to evaluate the effects of different policy decisions regarding FDI regime as a shortcoming. Richards and Yang (2007) integrate transaction theory and national culture perspectives in order to explain the degree of equity ownership in R&D joint ventures. They find evidence that multinationals prefer to hold a higher degree of participation in its R&D joint venture when they come from a less risk-averse culture, and when the JV is oriented to the local market. This finding is in line with Demirbag et al (2007), whom draw from institutional and transaction cost theories to analyse ownership decisions by foreign multinationals in Turkey. It turns out that JV is the preferred choice when parent companies are located in countries with higher differences in political stability, corruption, culture and language (respect to Turkey). On the other hand, companies working in the most developed regions of Turkey, entering industries with higher degree of concentration of foreign capital, or being intense in research and development, show more propensity to opt for WOE. Demirbag et al (2007) discuss also the marginal effects of the different variables on the form of JV used (minority, 50-50%, majority). Finally, York and Lenox (2013) argue that also socioeconomic norms and movements may influence new entrants in certain industries (such as green building supply) to a greater extent than host country economic and political conditions.

Finally, a fourth strand of literature argues that the degree of ownership is better explained by the global strategic decisions taken by multinationals (MNE) than by transaction costs. In this fashion, Davis et al (2000) stand that most researchers have focused only on (external) host country institutional factors, while it is important to look also at << [...]the internal arrangement of activities in the organization>>. They find that affiliates with shared advertising, equipment and R&D activities with the parent are usually constituted as WOE. On the other hand, cultural and product usage differences result in the choice of modes of entry with a lesser degree of control. Overall, parent company characteristics (internal isomorphism) are more important than host country

factors in determining entry-mode choice; at the same time, neither business unit level strategy nor experience had an impact on entry mode.

Cui and Jiang (2009) adopt a strategic behaviour framework to explain entry mode in foreign markets, which seems to fit better the case of Chinese internationals than traditional transaction costs theory. Their results show that Chinese enterprises usually opt for WOE in host countries with intense competition, when seeking strategic assets, and when pursuing a global corporate strategy. Joint Venture is preferred when entering in high growth emerging markets, to enjoy from early-mover advantages. The last finding seems to be in line with the traditional enterprise literature (see, for instance, Porter and Fuller, 1986); however, it is challenged by Richards and Yang (2007), whom find some evidence proving that managers from high uncertainty avoiding countries do also opt for a higher degree of controls in uncertain environments, probably because the potential payoff is high (e.g. in China, India). Dikova and van Witteloostuijn (2007) distinguish between global and multi-domestic strategy¹³, but the proxy they use is found to be insignificant in determining the entry mode. Finally, it is also worth taking into account that multinationals learn from previous practises and they are faster in setting multiple subsidiaries when they use entry modes in which they already have experience (Gao and Pan, 2010).

In general, it can be argued the strategic approach presents certain similarities with the ownership factors discussed within the OLI framework. In fact, the OLI framework was complemented by the *Knowledge-Capital model* (Helpman, 1984; Markusen, 1984; Krugman and Venables, 1995), which can be related to the strategic decisions taken by multinationals. As discussed in the previous chapter, this *Knowledge-Capital model* (Markusen and Maskus, 1999) allows for multiple production facilities, separating cross-support centralized services and disperse production in some cases. This model argues that there are three main types of FDI: that focused in serving demand in the host country

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A global marketing strategy assumes that consumers across the world have the same preferences (e.g. Coca Cola), whereas a multi-domestic strategy tries to adapt the product (and the rest of the elements of the marketing mix) to the different destination markets.

(market seeking or horizontal FDI), that used as export platform (vertical FDI), and that seeking to exploit resources and raw materials (strategic asset seeking FDI). Horizontal multinationals tend to be established when the origin and destination economies of the investment are similar in size and total demand is high. Conversely, vertical multinationals will appear when economies are dissimilar in size and endowments, and would be prevalent in developing countries. In principle, horizontal FDI is likely to be a substitute for trade, as firms use FDI instead of exports supply the market, and will probably compete with local industries. By contrast, vertical FDI is a complement to trade, it is export oriented and it does not normally compete with local industries. We will be thus seeing this as part of the strategic decisions the international investor face.

Summarizing, the transaction cost theory, the OLI eclectic framework, institutional theories and MNE strategic approach should be regarded non as exclusive but as rather complementary strands of literature aimed at explaining the complexity of foreign market entry mode. This topic was mostly visited during the nineties, and few papers have assessed the factors influencing these decisions at the light of more current data and new available sources. It is also worth noting that most of the more recent studies draw from single country surveys and databases (Japanese firms, American firms), and/or have frequently focused in China and East Asia (Cui and Jiang, 2009; Gao and Pan, 2010; Chen and Chang, 2011; Chang et al, 2013). As abovementioned, this paper aims at contributing to the literature on the following ways: (i) by using recent worldwide World Bank Enterprise Surveys (firm level data); (ii) combining and testing the different existing theories on the topic, thus presenting a larger set of hypothesis and dimensions to be analysed; (iii) and assessing entry mode decisions for foreign companies in Latin America, ultimately trying to draw evidence-grounded implications for policy makers and entrepreneurs investing in the region.

Prior to discussing our econometric approach to the determinants of entry mode, in the next section we discuss of the idiosyncrasy of foreign owned firms in Latin America drawing from the World Bank Enterprise Surveys.

3.3. Distinguishing features of foreign owned enterprises in Latin America and the Caribbean

Do Latin American foreign owned firms face obstacles different than those of other regions? Using data from the World Bank Enterprise Surveys, this section presents some descriptive statistics that help us focusing the discussion on the characteristics of foreign firms in Latin America and the Caribbean (LAC). We show the results of some “equality of means” tests comparing several FDI aspects between different sub-regions.

3.3.1. Which problems do foreign companies face in Latin America, respect to other regions in the World?

Which are the most salient distinguishing features of the average foreign owned company in LAC, compared to other regions? The following stylized facts are presented in Table 3.7-1, at Appendix C. In general, foreign affiliates in Latin America tend to be slightly smaller in size than those in East Europe and Central Asia (ECA), South Asia or East Asia. At the same time, they have been, on average, operating longer, and count with a more experienced manager than in other regions. The degree of ownership in the region seems to be on the world average (79% owned by the foreigners). They rely on foreign technology licenses as much as those of other regions (17% declare to do so), although they tend to fall a bit behind in quality certificates (41%, compared to 47% in East Asia, ECA or South Asia).

A distinguishing feature of Latin American FDI is that it is mainly horizontal; the average affiliate exports only about 15% of total value, compared to 26% in ECA or 35% in East Asia and the Pacific. This may be related to both inward orientation and existing trade obstacles. For instance, for the average foreign affiliate it takes seven days to clear customs in Latin America, significantly longer than in ECA or East Asia. There is also a significantly higher number of entrepreneurs that find customs and trade regulations an obstacle in LAC, compared to other regions, and acquiring import licenses takes double (27 days) than in other parts of the world. This may be a reason why companies with foreign capital in Latin America rely less on inputs of foreign origin for their production processes. Around 62% of the workers involved in production are skilled, compared to 80% in East Asia, which seems to point to less sophisticated production processes; compared to other regions, a significantly higher number of entrepreneurs declare to have problems finding adequate workforce, and that labour regulation is an obstacle.

In what regards to access to basic infrastructures (electricity, water, phone), foreign companies in Latin America do not seem to face significantly more problems than in other regions. Only telecommunications seems to be a more serious obstacle. Foreign companies settling in Africa and Latin America report higher levels of informality and crime, and political instability and corruption are considered by entrepreneurs an obstacle. In Latin America, there are less entrepreneurs that consider that the interpretation of the law by public official is consistent, compared to other regions. Controls (or bureaucracy procedures) seem to be also an issue, and managers spend an average of 18 days a year dealing with regulation (compared to 9 in East Asia or 14 in ECA). A foreign affiliate needs an average of 64 days to obtain a business license (double than in Africa and ECA, triple than in Asia).

3.3.2. Which are the distinguishing features of foreign affiliates in Latin America, respect to local companies?

Companies established in Latin America with a share of foreign capital above 10% of social capital are in general larger than the average local competitor in terms of number of workers. Even if the average age of the company is the same, FDI firms count with relatively less experienced managers. Skilled workforce levels are similar in both FDI and local companies. On the other hand, FDI firms tend to rely more in foreign technology licenses (17% compared to 7%) and quality certificates (41% compared to 17%). They also tend to export abroad a larger share of their products, and show more propensity to import inputs for the production process than local companies (see Table 3.7-2).

Companies with foreign capital generally report slightly longer periods to obtain import licenses and operating licenses, as well as more days dealing with regulation and more tax inspections. Interestingly, local companies seem to be a bit more severe in their assessment of the business environment than the affiliates of multinationals, as a higher percentage of them consider that informality, access to land, crime, corruption and restricted access to finance are an obstacle to operations. On the other hand, managers of companies with foreign capital are more critic with customs and trade regulation and obstacles to the transportation of goods. There do not seem to be significant differences in the perception of the obstacles posed by political instability or business licenses and permits.

3.3.3. Have the distinguishing features of companies with foreign capital established in Latin America changed in the context of the international crisis?

In the World Bank Enterprise survey database we are using, Latin American

entrepreneurs were surveyed in 2006 (except for the Caribbean) and 2009-2010. We would like to see whether the characteristics of companies with foreign capital installed in the region have changed in the International Crisis period. Foreign owned companies in Latin America are nowadays larger, they tend to rely more in foreign technology licenses and quality certificates and, at the same time, they employ a lower percentage of skilled workers than prior to the crisis. They export more to the rest of the world, in spite of the fact that the average number of days to clear customs seems to have increased (see Table 3.7-3 at Appendix C).

There does not seem to have been significant improvements in getting connection to basic services, and electricity and telecommunications seem to be nowadays even more of an obstacle. In 2009-2010 political instability, crime, corruption and informality seemed to be a less serious problem than in 2006, and the reported percentage of annual sales as informal payments has halved. The number of days dealing with regulation and the waiting time to get an operating license have also significantly decreased. On the other hand, the number of tax inspections has increased and entrepreneurs in FDI companies are nowadays more concerned about tax rates and tax administration. Access to finance seems to be more difficult than in the pre-crisis period.

3.3.4. Within Latin America and the Caribbean, are there differences in the characteristics of companies owned by foreigners?

Within LAC, Central American companies with foreign capital are the largest, and those in the Caribbean the smallest. Years of operation are similar across the region, and the differences on average manager experience are barely significant. There does not seem to be differences in the percentage of skilled workers employed across sub regions, although there are in technology: companies in the Caribbean possess less quality certificates and rely more

in foreign technology. All these stylized facts are presented in Table 3.7-2 at Appendix C.

One of the most salient features is that foreign capital in the Caribbean seems to prefer JV as a mode of entry, whereas in other regions JV are not that frequent. As discussed in the literature, there is some evidence that companies with less ownership advantages (e.g. without a technology or a patent to protect) are more likely to embark in JV (Chen and Chang, 2011). We will test this hypothesis in section 3.4.1 (H1a, H1b).

South America and Mexico (SAM) is the region where foreign owned companies are least opened to international trade, both in terms of exports and imports of foreign inputs. Since the average number of days to clear customs is similar across sub regions and there are not significant differences in entrepreneurs' perception about customs and trade barriers in LAC, it may be argued that inward orientation may have to do with serving larger size economies in South America and Mexico, and not with trade obstacles. Nevertheless, it is worth noticing that obtaining an import license in SAM takes an average of 30 days, compared to just 21 in Central America and 15 in the Caribbean.

A JV seems in principle to be a more flexible way to incorporate inputs from other companies to the production process, and counting with a local may help dealing with regulation (15 days on average for JV compared to 19 for WOE). Interestingly, the number of days needed to obtain an import and operating licenses for a JV in Central America and the Caribbean is significantly lower than for a foreign WOE, whereas in South America and Mexico JV spend more time to obtain operating licenses.

With regards to the number of days needed to obtain basic services (electricity, water and phone connection), there are not significant differences across LAC sub regions, nor between JV and WOE. Once connected to the

grid, electricity does seem to be a more serious obstacle in Central America and the Caribbean than in South America and Mexico, regardless of the mode of entry selected.

When looking at the environment for doing business, it is possible to observe that foreign entrepreneurs in the Caribbean report that informality is less of an obstacle (compared to Latin America), and they report a lower percentage of annual sales made as informal payments. There is also a larger number of entrepreneurs that believe that the court system is fair in the Caribbean, compared to the rest of the region. We explore whether foreign entrepreneurs receive better treatment than locals in the Caribbean, but there are not significant differences in the percentage of annual sales made as informal payment, or the number of days dealing with regulation. Survey respondents declare that corruption and crime is more of an obstacle in Central America. Political instability and tax administration are perceived as more serious problems in South America and Mexico, compared to other sub regions. Finally, access to finance seems to be more likely to hinder operations in the Caribbean. We test more formally the significance of some of these preliminary findings in the next section.

3.4. Empirical estimation of foreign market entry mode determinants

3.4.1. Data and methodology

At the basis of this analysis is the World Bank – IFC Enterprise Surveys database¹⁴, which contains firm surveys conducted in more than a hundred countries, mainly developing and emerging markets, over the period 2002-2010. The survey method follows a stratified random sample, taking into

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Data and information about these surveys available at <http://www.enterprisesurveys.org/>

account sector, firm size, and region differences. Questionnaires are consistent and responses are comparable across countries. A possible caveat is that, whereas *ideally the survey sample frame is derived from the universe of eligible firms obtained from the country's statistical office*, it may not always be the case, and in a few cases the sample may not be fully representative at the business private sector or individual country level. Questions cover a broad range of business environment dimensions, including external trade and customs, access to finance, institutions, infrastructure, labour, competition, and performance. Due to the richness of its questionnaire, these surveys have been used in a large number of research topics, ranging from export determinants (Farole and Winkler, 2011) to informal competition (Friesen and Wacker, 2013), and it seems to serve well also to the purposes of this investigation.

It is worth mentioning that only data collected from 2005-2006 onwards adheres to the Enterprise Surveys Global Methodology and was fully standardized to make it comparable since the survey design stage. For this reason, we discard previous years, and focus on a 2006-2010 dataset, which contains two data points for most Latin American countries. We treat data as a cross section of countries (panel interviews have not been fully implemented yet), but we do include a “InternationalCrisis” dummy in some of the experiments to distinguish between surveys conducted in 2006 and those undertaken in 2009-2010. As abovementioned, our regional focus is in LAC, given that in recent years the entry mode by foreign companies has been mainly assessed for host countries in East Asia (Richards and Yang, 2007; Cui and Jiang, 2009; Chen and Chang, 2011).

In order to test the determinants of the entry mode choice (JV vs WOE) by companies with foreign ownership in LAC, following the literature, we perform a Logit regression. For that purpose, the first thing we do is to drop all the observations for local companies (those with foreign participation under 10% of firm equity). Then, a whole ownership dummy (=1 when the ratio of foreign

participation in the subsidiary >95%) is created. The choice of 10% and 95% levels of foreign participation to differentiate between domestic company, JV and WOE, follows the most common standards in the literature (Cui and Jiang, 2009), and results should not vary significantly when choosing other usual thresholds (5% and 90%, as discussed in Demirbag et al, 2007). Nevertheless, in order to confirm the robustness of results, we also estimate the regressions using the percentage of foreign ownership as alternate dependent variable (see Richards and Yang, 2007).

As, in principle, we do not have any theoretical basis to claim that this dummy would be following a normal distribution, we opt for a *logit* model instead of a *probit*. The latter is frequently used in models where there are clear marked differences between the two values of the dependent variable, whereas in this case we are making an “ad hoc” division in the continuum of “share of foreign ownership” and, for instance, the entry mode motivations of a subsidiary with a 94.5% share of foreign capital (considered JV) and those of a firm with a share of 95.5% (treated as WOE) may not differ that much. Both the *logit* and *probit* models may in principle present some heteroskedasticity problems, but these are corrected by most statistical packages, as it is the case of STATA.

The binary logit function varies between 0 and 1, frequently presents corner solutions, and is usually defined as shown in equation (i). In our case, the probability of opting for a WOE subsidiary, P_i , is depending on a series of determinants of the foreign market entry choice, represented by vector X_i . Conversely, the probability of creating a joint venture is defined as (ii).

$$(i) \quad P_i = \frac{1}{1 + e^{-\beta_1 - \beta_2 X_i}}$$

$$(ii) \quad (1 - P_i) = \frac{1}{1 + e^{\beta_1 + \beta_2 X_i}}$$

The observed values of our dependent variable (in this case, 0 and 1, since we use a WOE dummy) will constitute a Bernoulli event, conditioned by the occurrence of the different X :

$$(iii) \quad \Pr(Y = 1|X) = P_i \text{ and } \Pr(Y = 0|X) = 1 - P_i$$

Following the empirical derivation presented by Gujarati (2003:623), we would need to find the parameters that maximize the following common density function:

$$(iv) \quad \text{Max}\{\sum_{i=1}^n (Y_i[\beta_1 + \beta_2 X_i] - \ln[1 + e^{\beta_1 + \beta_2 X_i}])\}$$

At this point, it is worth mentioning a series of caveats. First, this paper assesses only the entry mode determinants of foreign companies that are already established in LAC. Given the chosen dataset, we are simply unable to capture those multinationals that at some point were planning to invest in the region but, due to business obstacles, risks, or strategic reasons, in the end did not do it. Nevertheless, it is worth noting that this does not imply any kind of selection bias, we simply focus in the companies that are already in the region, and whose investment has materialized either in a JV or a WOE.

Another challenge we face is the fact that these surveys have not been designed to look specifically at the factors influencing mode of entry on foreign markets, but rather at obstacles to daily business operations. Cui and Jiang (2009) or Agarwal and Ramaswami (1992) administered specific questionnaires to address their research questions. We thus recognize that some of the proxies we choose for the analysis may not be the most accurate and, then, results should be interpreted with caution. In addition, Bloningen (2005) argues that using survey responses from officials or businessmen familiar with the country may not provide an accurate and comparable measure of institutions across

countries. We try to mitigate this caveat by drawing from a careful literature review and, according to it, selecting the most suitable proxies to test the different theoretical approaches.

Finally, a strong assumption we are making is that multinational companies conduct a thorough assessment of the destination market when they opt for investing in a subsidiary/branch (as opposed to exporting), and when choosing between creating a JV or going for a WOE branch. This implies that most of the obstacles managers of foreign companies declare in the surveys were not unexpected, and did have a bearing when deciding the form of entry. In addition, in line with Chen and Chang (2011) this is a dynamic decision and the degree of foreign participation in the subsidiary may vary over time, with companies switching from WOE to JV and vice versa react to changes in host market and organizational conditions.

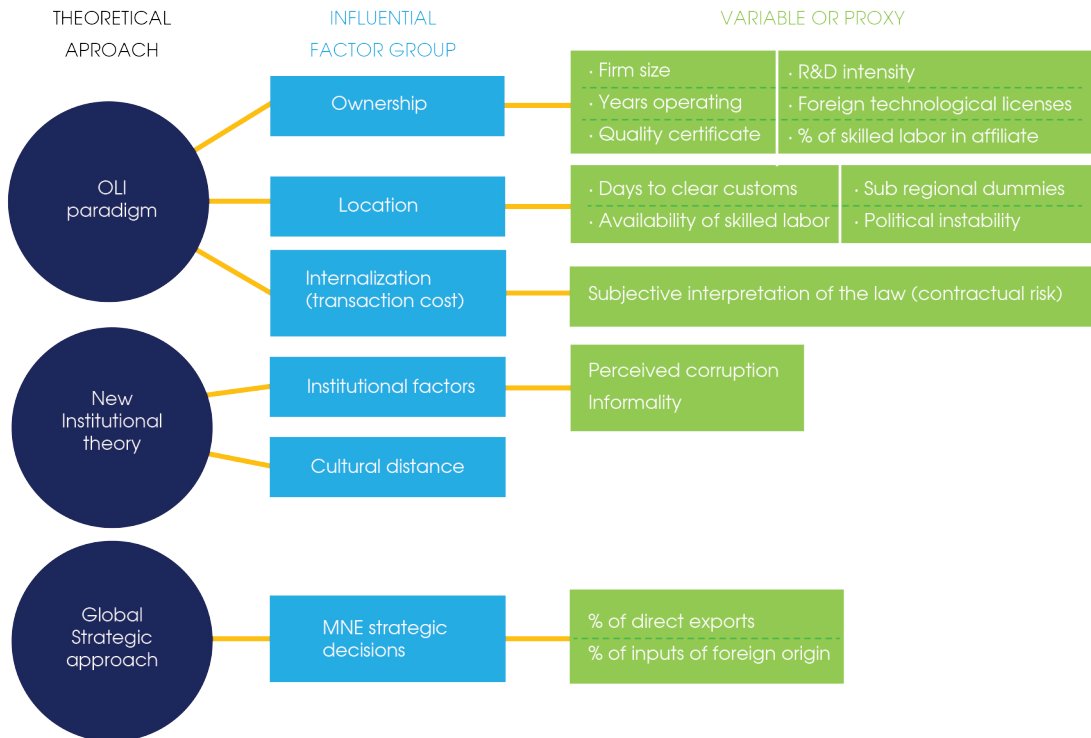
3.4.2. Formulation of hypotheses and selection of variables

Drawing from existing theories, in this section we present a series of research questions or hypothesis to be tested, and we account for the variable selection process.

First, drawing from the literature review, we look at ownership factors influencing the entry mode choice (JV vs WOE). According to the OLI framework, instead of exporting or licensing, a company can minimize the risk of imitation or suffering reputational or strategic asset losses by directly locating in the target market (Dunning, 1973; 1980). Similarly, a company counting with patents or comparative advantages in the production process respect to competitors would try to protect them from opportunistic behaviour, and, in principle, would be more inclined to opt for a WOE instead of a JV when investing in a foreign market. Although Brouthers (2002) did not

find conclusive evidence that asset specificity (measured as the percentage of sales invested in R&D) has significant impact on foreign market entry mode, we would like to test this contention again by using two variables related to intangible assets: *foreign technology licenses* and *official quality certificates*.

Figure 3.4-1. Selection of variables and proxies according to the existing strands of literature.



Source: Author's elaboration based on the literature review

- **H.1a** Companies that have licensed foreign technology show more propensity to choose WOE when establishing an affiliate.
- **H.1b** Firms counting with quality certificates are more inclined to opt for WOE subsidiaries.

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Calculated as the mean research and development expenditure as a percentage of total output, by ISIC chapter (2 digits level of aggregation).

Similarly, it can be also argued that foreign direct investment in high technology or research intense sectors would normally take the form of WOE, in order to maintain control over this processes and minimize the risk of reverse engineering by competing firms. Empirical evidence is, however, mixed: whereas some studies confirm the relevance of “R&D intensity” for the entry mode choice (Davis et al, 2000; Demirbag et al, 2007; Chan and Chang, 2011), in other cases it does not seem to be significant (Kogut and Singh, 1988; Dikova and van Witteloostuijn, 2007). For the purposes of this research, we link the OECD (2011) mean Technology Intensity index¹⁵ with survey observations through the ISIC code, for the different sectors, in order to test the following contention:

- **H.2** MNE’s competing in R&D intensive sectors prefer a higher degree of ownership in the affiliates.

The empirical literature has often highlighted the impact of the manager or multinational experience, or the years of operation of the subsidiary on the ownership structure, although evidence if not always conclusive about the sign of this relationship. Tatoglu et al (2003) find some evidence about positive correlation between the age of the affiliate and the probability of being a WOE. On the other hand, however Chen and Chang (2011), following Anderson and Gatignon (1986), find that in China the most experienced multinationals are more efficient in operating through JV agreements. In this fashion, we would like to test this hypothesis in the case of Latin America:

- **H.3** The age of the affiliate is negatively correlated with the probability of maintaining a WOE structure.

Fourth, following the line of thought of the OLI framework, a multinational that needs to rely more on skilled labour to develop

entrepreneurial processes with higher value added would have certain *ownership* advantages from opting for a higher degree of participation in subsidiaries, in order to be able to determine which staff (with differentiated abilities) is hired and kept, as they constitute a key factor in the production process.

- **H.4** The more a subsidiary relies in skilled labour, the higher the control the foreign parent wants to exert over it (WOE more likely).

Apart from thinking about the ownership of specific assets, the multinational investing in a foreign country faces also a series of strategic decisions, such as what is going to be the source of raw materials and other inputs. If the process of production requires from large amounts of local inputs, a JV would be more appropriate, in order to assure timely and quality supplies (Chen and Chang, 2011).

- **H.5** The higher the reliance on local inputs for the production process, the more probable the MNE will opt for a lower degree of ownership (WOE less likely). Subsidiaries which are more dependent in foreign inputs are more likely to take the form of WOE.

When we look at the location determinants of foreign companies in the context of the OLI paradigm, it is argued that companies tend to export to or use lower degrees of ownership (JV) in markets characterized by instability. This has to do with uncertainty avoidance patterns, as discussed by Kogut and Singh (1998), and Richards and Yang (2007). In this context, we use the survey question <<*is political instability an obstacle for conducting business?*>> as a proxy for destination market uncertainty. At the same time, political instability seems to be also related to investment risk. Brouthers (2002) and Davis et al (2000) found some evidence that the higher the investment risk is, the lower is the probability for a WOE, whereas Agarwal and Ramaswami (1992) do

not.

- **H.6** Companies tend to choose JV when entering countries with higher levels of political instability.

According to Transaction Costs Theory, companies will opt for *internalizing* processes when the costs of operating through the markets are higher than those of the hierarchical structure (Coase, 1960; Williamson, 1989). Agarwal and Ramaswami (1992) argued that the preferred mode of entry will be WOE in countries with higher contractual risks, as the cost of drafting and enforcing a Joint Venture contract in a setting with weak rule of law would be unbearable; however, they did not find conclusive evidence confirming this hypothesis. We use entrepreneur perceptions about the fairness of the court system as a proxy to test this contention.

- **H.7** In those settings in which the court system is perceived as fair, foreign WOE will be less likely.

Even if we do not count with the country of origin to test for *cultural distance* between the international investor and the host country, we do include some institutional variables in our analysis. Dikova and van Witteloostuijn (2007) argue that a greater degree of institutional advancement (better governance, less corruption.) would be positively related to the choice of JV, but they find no conclusive evidence. Conversely, in line with Brouthers (2002), who finds that firms entering markets where investment risk is high tend to use JV modes, we argue that multinationals investing in countries with weaker institutions, poorer governance and corruption (see Demirbag et al, 2007), will be more likely to use a JV mode, given that counting with a local partner may help the subsidiary navigate the idiosyncrasy of host country institutions. We try to test this argument by developing three sub-

hypothesis.

- **H.8a** Companies tend to choose JV where corruption is more pervasive. Thus, companies working in environments characterized by higher control of corruption are more likely to opt for a higher degree of ownership.
- **H.8b** Foreign owned firms are more likely to present JV form in countries in which informal payments are more frequent.
- **H.8c** Companies tend to choose JV in countries where dealing with regulation takes more time.

Finally, according to the *Knowledge-Capital model*, derived and evolving from the OLI framework, it is possible to distinguish between horizontal, vertical and strategic asset seeking FDI (Markusen and Maskus, 1999). We argue here that the discussion between horizontal and vertical FDI can be linked to the Global Strategic Approach discussed in our literature review in the following way: when multinationals are planning to sell domestically most of the production in the subsidiary (market seeking or horizontal FDI), they are more likely to opt for a JV, in order to quickly gain knowledge and information about the local market (Brouthers, 2002). On the other hand, when they are planning to sell to a third country (export oriented or vertical FDI), WOE would be preferred, as the company usually have to rely more on specific assets (Chen and Chang, 2011). Similar to Fukao and Wei (2008), we use the local sales ratio as a proxy to distinguish between vertical and horizontal FDI, and we test the following contention.

- **H.9** Foreign export platforms (with a higher percentage of sales directed to foreign markets outside the host country) are more likely to be wholly owned.

3.4.3. Regression results

In this section we present the outcomes of our empirical exercise, structured around the different hypothesis we have formulated. Hypotheses 1 to 4 have to do with distinguishing features of the multinational company and its subsidiary (“ownership”); hypotheses 6 to 8 relate to destination market characteristics (“location”, “transaction costs”, “institutions”); finally, hypotheses 5 and 9 would test certain “strategic decisions” by the multinational company. This is, of course, just an informative distribution of hypothesis to guide the reader; it could be perfectly argued that some of the proxies chosen would fit better in a different set of factors, as the boundaries between the different theories presented here are often blurry. As previously argued, they should be seen as complementary rather than competing views. Results are presented in table 3.4-1.

H1a seems to be fully supported, as the coefficient of the variable *foreign licensed technology* is robust (varying between 0.5 and 0.8), and it is statistically significant at the 1% level of confidence in most of the equations (see Table 3.4-1). This implies that subsidiaries of multinational companies in Latin America that rely on foreign technology licenses normally take the form of WOE companies rather than JV. This way, the MNE can better protect the ownership of the distinctive technology, minimizing the risk of imitation or misuse.

We find no conclusive evidence of **H1b**, as the confidence level for *quality certificate* is barely significant at the 10% level in specification I, but becomes insignificant when plays together with foreign licenses and other variables. This means that, contrary to what would be expected, owning a quality certificate does not necessarily result in a higher propensity for FDI to take the WOE mode. We decide to leave *quality certificate* aside in most of the specifications.

Thus, we find mixed evidence of the impact of the ownership of specific assets on the entry mode choice. Whereas Brouthers (2002) was not able to confirm the “ownership” hypothesis by asking for “specific assets” on their survey, we can affirm that at least certain intangible assets such as foreign technology licenses do have a positive impact on the probability of opting for a WOE.

Second, we do not find support for **H2**, as companies with foreign ownership competing in technologically intense sectors are not more inclined to choose WOE mode. Thus, for Latin America and the Caribbean in the period 2006-2010 we are unable to confirm the findings by Demirbag et al (2007) and Chen and Chang (2011).

Third, the contention that the age of the affiliate is negatively correlated with the chance of maintaining a WOE structure (**H3**) is moderately supported. The coefficient is negative, as expected, and the t-test for *years of operation* is significant at the 5% or 10% level in most of the equations, except when we include *informal payments*. This finding seems to be in line with Chen and Chang (2011), and contrary to Tatoglu et al (2003), who argued that companies with longer experience prefer a greater degree of control.

With regards to the quality of human capital, results compel us to reject **H4**, as companies relying on a higher share of skilled labour do not show more propensity to present a WOE form.

We find some that companies relying on foreign inputs tend to opt for WOE. Thus, this tentatively confirms our hypothesis (**H5**) that firms buying a larger set of local inputs for the production process show more propensity to take the form of JV (the coefficient is significant only at the 10% level in some of the regressions). An explanation is that foreign companies take advantage of the experience of the local partners when choosing a domestic supplier.

As expected, the sign of the coefficient related to political instability is

negative, suggesting that foreign investors opt for joint ventures in the most uncertain contexts (**H6**). This seems to confirm also in Latin America and the Caribbean previous findings by Kogut and Singh (1998), Richards and Yang (2007), and Brouthers (2002). It is worth noticing, however, that the coefficient is barely significant at the 10% level of confidence, and results have to be interpreted with caution.

Contrary to what would be expected, in countries in which the courts are perceived as fair, foreign entrepreneurs prefer to retain WOE instead of opting for JV; the coefficient is statistically significant, but has an unexpected positive sign. Thus, **H7** is rejected. A possible explanation is that the selected variable may not be the best proxy for contract enforcement or contract negotiation (as defined by the theory). Alternatively, it may also be the case that in those Latin American countries in which foreign investors perceive there is a higher degree of discretion when applying law, they prefer to count with a local counterpart to better navigate the different legal and regulatory requirements they subsidiary may encounter (thus establishing a Joint Venture).

There is little evidence that companies opt for JV in countries with less developed institutions (**H8**). The coefficients for *corruption is an obstacle* and *management's days dealing with regulation* are not significant in specifications IX and X. The coefficient for *percentage of sales made as informal payments* is negative and significant at the 10% confidence level in equations XII and XIII, which may point to some weak causality between informality levels in the host country and JV choice by foreign entrants: multinationals would prefer to go hand in hand with a local company in the most informal environments, in order to benefit from their contacts and bargaining power.

Finally, we find strong evidence for **H9**, meaning that the higher the percentage exports represent in total sales, the more probable is that subsidiary takes the form of WOE. Results are robust and significant at the 1% level in most of the equations. This result is related to the knowledge capital model

Table 3.4-1. Empirical test results.

LAC Binomial logit. WOE as dependent	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
H3 Subsidiary years of operation	-0.00636***	-0.00614**	-0.00649**	-0.00453*	-0.00535*	-0.00571*	-0.00610**	-0.00651*	-0.00608**	-0.00536*	-0.00633*	-0.00447	-0.00363	-0.00572	-0.00492
H4 % of skilled labour as % total	0.353*	0.284	0.275	0.258	0.3	0.245	0.289	0.282	0.274	0.252	0.314	0.3	0.265	0.193	0.316
H1b quality certificate	0.230*		0.0973												
H1a foreign licensed technology		0.593***	0.570***	0.613***	0.607***	0.630***	0.635***	0.731***	0.612***	0.584***	0.763***	0.508***	0.492***	0.780***	0.506***
H2 technological intensity sector				-0.0535	-0.0342	-0.051	-0.0467	-0.0772	-0.0481	-0.0504	-0.0528			-0.147*	-0.0703
H5 % of inputs of foreign origin				0.00351*	0.00332	0.00359*	0.00342	0.00351	0.00375*	0.00377*	0.00305		0.00429*	0.00405	0.00533*
H9 % of direct exports over sales				0.00595***	0.00592***	0.00616***	0.00605***	0.00517*	0.00607***	0.00562**	0.00586*		0.00636**	0.00808*	0.00729**
H7 Courts are fair						0.165**	0.132*	0.242**	0.129*		0.238**			0.385***	0.220**
H6 Political instability is obstacle							-0.106*	-0.146*			-0.133*			-0.0312	
Days to clear customs								0.0057			0.00455			0.00417	
H8a Corruption as an obstacle									-0.0622	-0.0751					
H8c Management days dealing with regulation										-0.00198					
Caribbean dummy					0.0184						-0.844		0.28		0.264
Central American dummy					0.188						0.314		0.0999		-0.0145
South America and Mexico															
International crisis dummy					0.471***						0.493**		0.263		0.225
Services dummy															
H8b % of annual sales as informal payment												-0.0635*	-0.0621*	-0.0469	-0.0489
_cons	0.318*	0.259*	0.231	-0.0167	-0.344	-0.317	-0.0546	-0.139	-0.128	0.2	-0.566	0.185	-0.354	-0.77	-0.738**
N	1413	1413	1413	1380	1380	1333	1326	777	1317	1323	777	880	869	482	829

Source: Author's calculations. *, **, and *** refers to the statistical significance of the coefficient at the 10%, 5% and 1% levels of confidence

(Markusen and Maskus, 1999), and is in line with the findings of Chen and Chang (2011): market seeking FDI (when most of the sales of the subsidiary are directed to the local market) has a higher probability of taking the form of joint venture, as partnering with local companies is probably a good way of accessing relevant distribution channels and target groups of customers. On the other hand, foreign investors that locate abroad to establish an export platform are more likely to opt for a WOE, thus ensuring the control over production and international logistics (Change et al, 2013).

We summarize the results of hypothesis testing in the next table.

Table 3.4-2. Results from hypotheses testing.

Statistical Evidence	Hypothesis from the theoretical review to be tested
Confirmed	H.1a Companies that have licensed foreign technology show more propensity to choose WOE when establishing an affiliate.
Rejected	H.1b Firms counting with quality certificates are more inclined to opt for WOE subsidiaries.
Rejected	H.2 MNE's competing in R&D intensive sectors prefer a higher degree of ownership in the affiliates.
Confirmed	H.3 The age of the affiliate is negatively correlated with the probability of maintaining a WOE structure.
Rejected	H.4 The more a subsidiary relies in skilled labor, the higher the control the foreign parent wants to exert over it (WOE more likely).
Confirmed (at 10% level)	H.5 The higher the reliance on local inputs for the production process, the more probable the MNE will opt for a lower degree of ownership (WOE less likely). Subsidiaries which are more dependent in foreign inputs are more likely to take the form of WOE.
Confirmed (at 10% level)	H.6 Companies tend to choose JV when entering countries with higher levels of political instability.
Rejected, contrary sign	H.7 In those settings in which the court system is perceived as fair, foreign WOE will be less likely.
Rejected	H.8a Companies tend to choose JV where corruption is more pervasive. Thus, companies working in environments in which corruption is perceived as a more severe obstacle are more likely to opt for a higher degree of ownership.
Confirmed (at 10% level)	H.8b Foreign owned firms are more likely to present JV form in countries in which informal payments are more frequent.
Rejected	H.8c Companies tend to choose JV in countries where dealing with regulation takes more time.
Confirmed	H.9 Foreign export platforms (with a higher percentage of sales directed to foreign markets outside the host country) are more likely to be wholly owned.

Source: Author's calculations.

In addition, it is worth mentioning that the coefficient of the control dummy “International Crisis” is positive and significant in some of the equations, suggesting a higher propensity of the WOE mode of entry in Latin America in 2009 and 2010, compared to 2006. On the other hand, sub-regional dummies (CAM, SAM, CAR) are insignificant across the different specifications, meaning that the same foreign entry mode determinants are taken into account by multinationals investing in Central America, Caribbean or South America.

Given that the endogenous variable in the Logit is the logarithm of the probability ratio, the interpretation of the coefficient is not straightforward. In order to correctly estimate to which extent does the probability ratio increase or decrease due to changes in the different explanatory variables, we need to calculate the exponential value of the coefficient (Table 3.4-3). Using this parameter, we could estimate the effect of an increase of 1 unit of an exogenous variable using the average of the mean of this one in the sample. As it is well-known, it is just an approximate result because the intrinsic non-linear Logit function determines different impacts of the same change in an exogenous depending on its previous level.

Thus, for example, each additional year of operation in the subsidiary decreases the WOE/JV distribution ratio by 0.61% ($1 - 0.9939$, in specification VII). Each percentage point increase of inputs of foreign origin and direct exports over total sales results in increases in this ratio of 0.34% and 0.61%. Significant institutional determinants influencing the foreign market entry mode decision are political instability (-10% change in the ratio per each point of change in the 1 to 5 scale) and *courts are fair* (+14%). Finally, the factor with a greater impact seems to be counting with a foreign licensed technology, as switching the dummy from 0 to 1 increases by 88% the ratio of wholly owned enterprises versus joint ventures (65% if we look at specification XV).

Table 3.4-3. Degree of impact of the significant determinants on the foreign market entry mode decision.

Variable	Specification VII (WOE/JV=1.59)			Specification XV (WOE/JV=1.49)		
	Coefficient	Exp (coeff)	Mod. Ratio	Coefficient	Exp (coeff)	Mod. Ratio
Subsidiary years of operation	-0.0061	0.9939	1.5803	-0.0049	0.9951	1.4821
% of skilled labor as % total	0.2890	1.3351	2.1228	0.3160	1.3716	2.0429
foreign licensed technology	0.6350	1.8870	3.0004	0.5060	1.6586	2.4704
technological intensity sector	-0.0467	0.9544	1.5175	-0.0703	0.9321	1.3883
% of inputs of foreign origin	0.0034	1.0034	1.5954	0.0053	1.0053	1.4974
% of direct exports over sales	0.0061	1.0061	1.5996	0.0073	1.0073	1.5003
Courts are fair	0.1320	1.1411	1.8144	0.2200	1.2461	1.8559
Political instability is obstacle	-0.1060	0.8994	1.4301			
Caribbean dummy				0.2640	1.3021	1.9394
Central American dummy				-0.0145	0.9856	1.4680
International crisis dummy				0.2250	1.2523	1.8652
% of sales as informal payment				-0.0489	0.9523	1.4183

Source: Author's calculations based in regression results

With regards to the overall goodness of fit of the model, it is not advisable to calculate the variance of the endogenous variable, given its dichotomous nature. To assess the real usefulness of the model we look at its predictive capacity, contrasting the way it assigns 0 and 1 values with our observed sample distribution. As presented in Table 3.4-4, our logit model (specification X in table 3.4-1) predicts correctly in 62.1% of the cases, with greater accuracy to determine in which cases do a foreign multinational establishes a WOE subsidiary (74%) than the cases in which they opt for joint ventures (43%) – under a success cutoff threshold of 0.56—.

Table 3.4-4. Expectation / prediction evaluation for binary specification.

		ACTUAL			
			WOE	JV	Tot
WOE=1 if foreign ownership>=95%	FITTED	1	603	290	893
Classified + if predicted Pr(D) >= .56		0	211	219	430
True WOE defined as WOE =1		Tot	814	509	1323
		TRUE			
			WOE	JV	Tot
WOE=1 if foreign ownership>=90%	FITTED	1	641	259	900
Classified + if predicted Pr(D) >= .6		0	221	202	423
True WOE defined as WOE =1		Tot	862	461	1323
		ACTUAL			
			WOE	JV	Tot
WOE=1 if foreign ownership>=51%	FITTED	1	795	196	991
Classified + if predicted Pr(D) >= .71		0	212	120	332
True WOE defined as WOE =1		Tot	1007	316	1323
		WOE>=95%	WOE>=90%	WOE>=51%	
Sensitivity	Pr(1 WOE)	74.08%	74.36%	78.95%	
Specificity	Pr(0 JV)	43.03%	43.82%	37.97%	
Positive predictive value	Pr(WOE 1)	67.53%	71.22%	80.22%	
Negative predictive value	Pr(JV 0)	50.93%	47.75%	36.14%	
False + rate for true ~D	Pr(1 JV)	56.97%	56.18%	62.03%	
False - rate for true D	Pr(0 WOE)	25.92%	25.64%	21.05%	
False + rate for classified +	Pr(JV 1)	32.47%	28.78%	19.78%	
False - rate for classified -	Pr(WOE 0)	49.07%	52.25%	63.86%	
Correctly classified		62.13%	63.72%	69.16%	

Source: Author's calculations

In any case, again, it is worth noting that the purpose of the experiment is not predicting the behaviour of the companies, but rather assessing the validity of certain theories and hypotheses; thus, it is for us more important to look at the significance of the explanatory variables. In order to confirm the validity

of our results, we have not only run our regressions using binary logit, but also under OLS, using foreign ownership over the percentage of total shares as the dependent variable (instead of the WOE dummy). As can be observed in Table 3.7-4 at Appendix C, the coefficient for the following variables remains significant too in most of the equations: subsidiary years of operation, foreign licensed technology, % of inputs of foreign origin (barely significant), % of exports over total sales, courts are fair, and the % of annual sales that has to be made as informal payment. We have also resorted to Variable Inflation Factor (VIF) analysis after each of the regressions to account for potential multicollinearity. Results point to extremely low VIF values for all the variables (below 1.11) except for the sub-regional dummies, which are also at a reasonable levels (2.9, compared to the threshold of 5 that is commonly use, as a rule of thumb, to signal multicollinearity problems). Only the dummy for services has been omitted due to multicollinearity with skilled labor.

In sum, empirical test results point to certain factors that are relevant in the foreign entry mode decision, such as subsidiary years of operation, counting with a foreign licensed technology, informality in the host country and the overall orientation of the FDI subsidiary (horizontal versus vertical). These findings have important implications for managers of multinationals and policy makers in Latin America and the Caribbean, as discussed in section 3.5.

3.4.4. Do foreign entrants locating in Latin America and the Caribbean have to take into account different factors than in the rest of the world?

A legitimate question we need to address is to which extent the findings we have presented are specific to Latin America and the Caribbean, and to which extent they can be generalized and apply also to entrepreneurs investing in

other regions. If we compare the results in Table 3.4-1 with those of Table 3.7-5 (Appendix C), it is possible to observe that subsidiary years of operations, the percentage of foreign inputs, political instability and the percentage of exports (vertical orientation), are also significant and preserve the expected sign when we look at foreign investments outside LAC, thus confirming hypotheses H3, H5, H6 and H9, respectively. Additionally, the technological intensity of the sector, the percentage of skilled labor, and the number of days to clear custom remain insignificant, endorsing the rejection of H2 and H4.

When we look at institutional variables, it is possible to observe that foreign entrepreneurs investing in Latin America take into account different factors that those investing in other parts of the world when assessing the foreign entry mode decision. While in other regions entrepreneurs tend to opt for joint ventures in environments characterized by severe corruption and/or bureaucratic burdens, in LAC those factors do not seem to be significant, and foreign investors pay more attention to the fairness of the court system and, sometimes, the percentage of informal payments they have to make.

Finally, strategic assets also seem to play a different role in foreign entry decisions in LAC and outside the region. When we look at foreign entrants in other countries, it seems that, contrary to what is predicted by ownership theories, companies holding quality certificates tend to opt more for joint venture formulas. It may be the case that MNE's holding a quality certificate agree to share it with the local partner in exchange for know how about the host market, or even that the international investor acquires part of a local company to get its local quality certificate (in line with resource "augmentation" motivations in Meyer et al, 2009); unfortunately, this is something we cannot test in our dataset. On the other hand, and more importantly, unlike in other regions, counting with a foreign licensed technology is a very influential determinant in LAC, noticeably increasing the probability that the foreign company goes for WOE to enjoy ownership advantages. In future research, it

16.

Data and metadata
accessible at <http://www.heritage.org/index/property-rights>

would be interesting to try to understand the reasons behind the distinctive attention that foreign entrepreneurs pay to foreign licensed technologies when deciding on the entry mode of a subsidiary in LAC (but not in the rest of the world). A tentative explanation for this is that, according to the Index of Economic Freedom¹⁶, Latin America presents the widest intra-regional range of variation in the enforcement of property rights and thus, in line with Papageorgiadis, Cross, and Alexiou (2013), foreign entrepreneurs would be taking into account de facto enforcement of property rights to inform their entry mode decision more seriously than in other continents.

In sum, while, in general, the determinants of foreign entry mode in LAC are similar to those in the rest of the world, foreign entrepreneurs investing in the region seem to pay more attention to a different set of institutional arrangements.

3.5. Policy implications and conclusion

In this paper we have used World Bank Enterprise Surveys to empirically test the determinants of foreign market entry mode in Latin America and the Caribbean, in the period 2006-2010. Results suggest that international investors and multinationals take into account a wide range of factors (Ownership, Location and Internalization, institutional and strategic considerations) when they decide between establishing a joint venture or a wholly owned enterprise in the region. Thus, in line with Brouthers (2002), we argue that the different strands of theoretical literature should be seen as complementary rather than as competing views.

Managers of foreign companies and multinationals willing to invest in developing countries may find our results useful to orient its foreign entry mode choice. Drawing from the *Knowledge-Capital model* (Markusen and Maskus,

1999), we look at whether certain strategic decisions, such as the objective and orientation of the subsidiary, have an impact on the foreign entry mode. One of these decisions is which market is the subsidiary going to serve. It seems that a joint venture is a more advantageous formula for foreign establishments selling to the local market (horizontal FDI), as counting with a local partner may help unlocking key distribution channels and reaching the targeted public. On the other hand, companies that have decided to establish an export platform (vertical FDI) in the region may find more efficient to opt for a higher degree of control over the subsidiary, in order to more closely manage the production and international distribution process of the product they are going to export. Related to this is the (also strategic) decision of obtaining supplies for the production process in the host country or abroad. Subsidiaries that rely to a greater extent on foreign inputs for the production process often take the form of WOE, in order to retain more control over the choice of the supplier. On the other hand, when the subsidiary buys a larger share of supplies in the local market, it is better to count with a JV, as the local partner is experienced in identifying the best domestic vendors and the most efficient channels to timely get quality inputs.

We have also tried to test whether the different components of the OLI¹⁷ framework (Dunning 1980) have a bearing on the entry mode decision, using a series of proxies. If the potential investor is holder of foreign technology licenses, opting for full participation in the subsidiary (WOE) may help preventing reverse engineering and surrendering strategic information to potential competitors. In our experiment, this factor seems to be the most influential determinant of foreign market entry mode, which, at least partially, validates the theory arguing that multinationals will be prone to retaining the “ownership” of specific assets (such as technology). Interestingly, this is a finding that holds only in Latin America and the Caribbean, but not in the rest of the developing world, and may have to do with the greater degree of variability of property rights enforcement across the region. On the other hand, there is

¹⁷ Ownership, location, internalization.

some evidence that firms counting with quality certificates are more inclined to opt for WOE subsidiaries when entering this region.

“Location” advantages do not seem to have a bearing on the entry mode decision, as barriers to clear customs and the availability of skilled labor in the host market are not significant.

At the same time, the institutional environment and the rules of the game (transaction costs) in the host country have certain impact in the entry mode and should be considered by international investors. In environments in which there is a higher perceived unfairness of the courts, a more instable political system, and the company has often to recur to informal payments as part of its regular operations, it may be useful to count with a local partner knowledgeable of the formal or informal channels through which the company can deal with potential obstacles to business. It is worth mentioning that not all the institutional variables matter, as corruption and regulatory complexity/bureaucracy do not significantly influence the choice between WOE and JV in Latin America and the Caribbean (but they do seem to be influential in other countries).

In sum, as contrasted by Davis et al (2000), both internal and external factors seem to have a bearing on the entry mode decision of foreign companies in Latin America and the Caribbean, although in our case it is difficult to prove that internal organizational isomorphism tends to dominate over host country factors. Nevertheless, as they argue, it may well be the case that, *<<[a]s the quest to gain economic efficiency and maintain control encourages parent firms to replicate known organizational routines using wholly-owned subsidiaries as conduits...>>*, companies opting for a higher degree of ownership may be losing some of the potential advantages of internationalization (country specific knowledge, easier access to distribution channels and customers under a locally tested marketing strategy). We find some evidence that, over time, subsidiaries are slightly more inclined to seek a higher degree of autonomy and more

flexible arrangements with local partners under the form of joint ventures (as argued by Chen and Chang, 2011). It is also worth noting that the determinants of foreign entry mode that we have found significant seem to be broadly similar in Latin America, Central America and the Caribbean.

Finally, a note for policy makers in the region. An intuition derived from the analysis is that by enhancing the legal framework for industrial property (and its effective enforcement) they will be ensuring foreign companies that their specific assets ownership will be respected when establishing a subsidiary in the country. This way, foreign investors would be more likely to rely on joint ventures, which could increase knowledge spillovers over local firms. Similarly, measures aimed at guaranteeing the quality and reliability local supplies (quality certificates, better supply contract enforcement) could help fostering backward linkages in the host economy.

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3.7. Appendix C. Descriptive statistics and additional results

Table 3.7-1. Average response values for foreign owned companies (>10%), by region.

Variable	AFR	EAP	ECA	LAC	SAR	ttest LAC vs rest	
Total surveyed companies	15276	4952	13286	25587	477		
Number of observations (FDI)	2557	780	1301	3381	20		
Size of the company	1.843	2.254	2.301	2.176	2.292	0.0000	***
% owned by foreigners	81.762	81.193	76.148	79.409	66.250	0.3274	
Manager experience (years)	14.578	15.173	14.843	18.921	15.996	0.0000	***
Quality certificate	0.305	0.464	0.477	0.413	0.472	0.0369	**
Licensed foreign technology	0.138	0.255	0.209	0.174	0.285	0.4958	
Affiliate years of operation	16.577	14.602	15.561	23.383	20.745	0.0000	***
Delay getting electricity connection	31.604	27.982	51.295	42.407	17.364	0.1305	
Monthly power outages	11.078	2.293	5.984	4.030	41.617	0.0000	***
Delay in obtaining water con.	35.109	29.727	40.952	41.816	12.333	0.4588	
Delay in obtaining phone con.	23.955	10.532	18.687	22.707	29.357	0.1984	
Is electricity an obstacle?	2.127	1.321	1.529	1.783	2.394	0.0113	**
Are telecommunications an obst	0.988	0.705	1.364	1.519	1.179	0.0000	***
% of national sales over total	88.593	58.288	68.922	80.531	70.686	0.0038	***
% of indirect exports over total	2.947	9.377	4.149	4.326	6.607	0.9761	
% of direct exports over total	8.429	35.216	26.928	15.149	23.122	0.0005	***
Average number of days to clear customs	8.233	6.055	4.460	7.363	8.696	0.0290	**
% of inputs of foreign origin	50.968	54.440	51.896	46.521	53.069	0.0000	***
Obs. transportation of goods and inputs	1.509	0.952	1.199	1.474	1.362	0.0000	***
Obs. Customs and trade regulation	1.427	0.977	1.190	1.501	1.169	0.0000	***
Is informality an obstacle?	1.609	0.833	1.285	1.506	1.055	0.0015	***

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Variable	AFR	EAP	ECA	LAC	SAR	ttest	LAC vs rest
Is access to land an obstacle?	1.208	0.766	0.992	0.809	1.391	0.0000	***
Is crime an obstacle?	1.690	0.781	1.231	1.660	1.394	0.0000	***
The court system is fair	2.335	2.456	2.209	2.024	2.031	0.0000	***
Interpretations of law consistent	2.445	2.437	2.230	2.337	1.714	0.0491	**
Days dealing with regulation (in a year)	9.807	9.350	14.334	18.155	5.504	0.0000	***
% of annual sales as informal payment	2.315	0.971	2.335	0.749	0.520	0.0000	***
Number of tax inspections	5.703	2.221	4.402	4.701	2.887	0.9848	
Import license (n days)	18.014	12.108	15.475	27.171	9.957	0.0000	***
Operating license (n days)	35.957	18.189	31.514	64.703	14.964	0.0000	***
Obs. Tax rates	1.714	1.070	1.930	1.716	1.482	0.1422	
Obs. Tax administration	1.481	0.913	1.498	1.542	1.396	0.0000	***
Obs. Business licensing and permits	1.186	0.691	1.167	1.341	1.430	0.0000	***
Obs. Macro instability	1.463	.	.	2.099	.	0.0000	***
Obs. Political instability	1.219	0.880	1.760	1.913	2.462	0.0000	***
Obs. Corruption	1.722	1.174	1.641	1.989	1.931	0.0000	***
Obs. Restricted hours of operation	0.554	.	0.875	1.274	.	0.0000	***
Obs. Prices mark-ups	0.932	.	0.686	1.346	.	0.0001	***
Obs. Restricted access to financing	1.645	0.820	1.275	1.301	1.117	0.0001	***
% of workers with high school	53.571	.	.	78.521	67.393	0.0000	***
Obs. Labor regulation	0.939	0.755	1.105	1.432	0.825	0.0000	***
Obs. Inadequate workforce	1.425	1.054	1.752	1.828	1.371	0.0000	***
% skilled workers	0.601	0.807	0.699	0.629	0.687	0.0002	***

Source: Authors' calculations using WB-IFC Enterprise Surveys. Sample weights not considered. *, **, and *** signal a statistically significant difference (at the 10%, 5% and 1% levels of confidence, respectively) in the two sample t-test we have applied. The test compares the means of the Caribbean and the rest of the world, taking into account a pooled variance. Under the null hypothesis, both groups have equal mean. More information about the test and its application with STATA is available at <http://www.stata.com/manuals13/rttest.pdf>.

Table 3.7-2. Average response values in Latin America, by sub-region and mode of entry.

Variable	LAC- FDI	LAC- DOM	FDI vs DOM	JV- CAR	JV- CAM	JV- SAM	WOE- CAR	WOE- CAM	WOE- SAM	JV	WOE	JV vs WOE
Number of observations	3381	22206	ttest (p)	240	192	761	223	366	1599	1193	2188	ttest (p)
Size of the company	2.18	1.74	0	2.09	2.31	2.35	1.96	2.38	2.07	2.29	2.11	0.0000
% owned by foreigners	79.41	0.01	0	48.82	54.36	50.35	99.95	99.92	99.87	50.69	99.89	0.0000
Manager experience (years)	18.92	21.91	0	19.43	18.98	20.44	16.48	16.60	19.00	20.00	18.16	0.0000
Quality certificate (%)	0.41	0.17	0	0.34	0.31	0.48	0.30	0.44	0.41	0.42	0.41	0.3507
Licensed foreign technology (%)	0.17	0.07	0	0.06	0.16	0.17	0.13	0.16	0.20	0.15	0.19	0.0038
Affiliate years of operation	23.38	23.59	0.5647	28.68	22.51	27.23	18.15	18.96	22.64	26.74	21.57	0.0000
Delay getting electricity connection	42.41	33.07	0.0007	53.57	50.29	47.65	18.39	38.55	39.75	48.90	38.32	0.1006
Monthly power outages	4.03	3.21	0.0004	9.03	3.80	2.06	8.80	5.03	2.13	4.23	3.90	0.7084
Delay in obtaining water con. (days)	41.82	43.24	0.8777	16.85	35.29	51.44	31.33	40.58	43.40	42.08	41.56	0.9557
Delay in obtaining phone con. (days)	22.71	23.39	0.8146	33.54	30.64	19.11	15.31	23.11	22.77	23.16	22.43	0.8102
Is electricity an obstacle?	1.78	1.86	0.0072	1.91	2.17	1.66	1.96	2.15	1.67	1.79	1.78	0.7961
Are telecommunications an obst.	1.52	1.45	0.0328	1.18	1.87	1.50	1.09	2.05	1.54	1.46	1.56	0.1109
% of national sales over total	80.53	92.20	0	80.29	76.75	81.30	72.59	67.50	84.72	80.37	80.62	0.8288
% of indirect exports over total	4.33	2.29	0	6.28	7.09	3.63	8.74	7.72	2.66	4.71	4.12	0.3206
% of direct exports over total	15.15	5.50	0	13.44	16.16	15.07	18.83	24.79	12.62	14.92	15.27	0.7380
Av.number of days to clear customs	7.36	7.88	0.6304	8.86	2.79	7.67	5.02	5.97	8.22	7.06	7.54	0.5076
% of inputs of foreign origin	46.52	31.99	0	50.32	54.99	39.79	52.89	58.84	45.46	43.17	48.69	0.0020
Obs. transportation of goods and inputs	1.47	1.37	0	1.30	1.63	1.47	1.25	1.72	1.46	1.46	1.48	0.7214
Obs. Customs and trade regulation	1.50	1.10	0	1.48	1.48	1.41	1.48	1.56	1.54	1.43	1.54	0.0267
Is informality an obstacle?	1.51	1.98	0	1.32	1.61	1.72	1.08	1.48	1.48	1.62	1.44	0.0004
Is access to land an obstacle?	0.81	0.93	0	1.04	1.00	0.84	0.82	0.73	0.75	0.91	0.75	0.0002
Is crime an obstacle?	1.66	1.73	0	1.62	1.96	1.51	1.63	1.87	1.66	1.60	1.69	0.0580

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Variable	LAC- DI	LAC- DOM	FDI vs DOM	JV- CAR	JV- CAM	JV- SAM	WOE- CAR	WOE- CAM	WOE- SAM	JV	WOE	JV vs WOE
The court system is fair	2.02	1.91	0	*** 2.41	1.79	1.91	2.55	1.90	2.00	1.99	2.05	0.0825 *
Interpretations of law consistent	2.34	2.25	0.0074	*** .	2.54	2.34	.	2.34	2.30	2.38	2.31	0.2334 .
Management's days dealing with regulation (in a year)	18.16	15.25	0	*** 6.65	14.16	18.96	7.15	13.04	22.66	15.73	19.47	0.0000 ***
% of annual sales as informal payment	0.75	1.14	0.0024	*** 0.46	1.48	0.82	0.11	0.47	0.93	0.82	0.69	0.4858 .
Number of tax inspections	4.70	4.11	0.0398	** 6.89	4.55	4.75	2.79	4.99	4.63	5.04	4.54	0.3742 .
Import license (n days)	27.17	24.16	0.0781	* 16.81	17.20	28.86	13.62	23.68	31.94	24.47	28.95	0.1584 .
Operating license (n days)	64.70	53.87	0.0387	** 18.06	32.04	95.82	26.09	45.19	75.77	67.32	63.08	0.6780 *
Obs. Tax rates	1.72	1.99	0	*** 2.13	1.53	1.75	1.88	1.42	1.70	1.79	1.67	0.0100 ***
Obs. Tax administration	1.54	1.72	0	*** 1.47	1.42	1.66	1.36	1.39	1.57	1.58	1.52	0.1414 .
Obs. Business licensing and permits	1.34	1.31	0.2231	0.98	1.32	1.35	1.03	1.33	1.44	1.27	1.38	0.0188 **
Obs. Macro instability	2.10	2.14	0.3026	.	1.79	2.33	.	1.65	2.13	2.22	2.01	0.0113 **
Obs. Political instability	1.91	1.93	0.4143	1.17	2.06	2.07	0.99	1.90	2.06	1.89	1.93	0.4220 .
Obs. Corruption	1.99	2.18	0	*** 1.49	2.38	2.17	1.30	2.16	1.99	2.07	1.95	0.0248 **
Obs. Restricted hours of operation	1.27	1.18	0.3194	.	.	1.34	.	.	1.23	1.34	1.23	0.5745 .
Obs. Prices mark-ups	1.35	1.40	0.6079	.	.	1.54	.	.	1.23	1.54	1.23	0.1366 .
Obs. Restricted access to financing	1.30	1.64	0	*** 1.68	1.35	1.36	1.58	1.24	1.18	1.42	1.23	0.0000 ***
% of workers with high school	78.52	71.81	0	*** 72.81	66.53	80.32	67.01	63.95	87.16	76.62	79.78	0.0420 **
Obs. Labor regulation	1.43	1.50	0.007	*** 1.15	1.16	1.66	1.14	1.05	1.53	1.48	1.41	0.1309 .
Obs. Inadequate workforce	1.83	1.88	0.018	** 1.85	1.92	1.98	1.92	1.69	1.76	1.95	1.76	0.0001 ***
% skilled workers	0.63	0.63	0.8734	0.62	0.57	0.61	0.60	0.61	0.66	0.60	0.64	0.0388 **

Source: Author's calculations using WB Enterprise Surveys, several years. LAC= Latin America and Caribbean; CAR= Caribbean; CAM= Central America; SAM= South America and Mexico; DOM= domestic company (foreign ownership <10%); JV= joint venture (10% to 95%); WOE= wholly owned enterprise (>95%).

Table 3.7-3. Average response values for foreign owned companies (>10%) in Latin America. Pre and post-crisis periods.

Variable	2006	2009-10	2010 vs 2006	
Number of observations	1604	1777	ttest (p)	
Size of the company	1.971945	2.359595	0	***
% owned by foreigners	80.05616	79.00341	0.3351	
Manager experience (years)	18.60969	19.11629	0.2302	
Quality certificate	0.3410224	0.4772088	0	***
Licensed foreign technology	0.1346633	0.2093416	0	***
Affiliate years of operation	20.03664	26.40502	0	***
Delay getting electricity connection	38.68502	45.61053	0.2709	
Monthly power outages	2.706537	4.986935	0.0099	
Delay in obtaining water con.	43.64103	41.28889	0.8354	
Delay in obtaining phone con.	24.89621	20.60994	0.1464	
Is electricity an obstacle?	1.725343	1.835023	0.0355	**
Are telecommunications an obst	1.03937	1.590643	0	***
% of national sales over total	84.02939	77.36353	0	***
% of indirect exports over total	2.803002	5.707483	0	***
% of direct exports over total	13.1676	16.94448	0.0002	***
Average number of days to clear customs	5.771429	8.349558	0.0003	***
% of inputs of foreign origin	47.86903	45.71429	0.2327	
Obs. transportation of goods and inputs	1.275601	1.651215	0	***
Obs. Customs and trade regulation	1.315644	1.655568	0	***
Is informality an obstacle?	1.575193	1.443221	0.0067	***

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Is access to land an obstacle?	0.6845809	0.9203187	0	***
Is crime an obstacle?	1.730457	1.596392	0.0024	***
The court system is fair	1.91572	2.090376	0	***
Interpretations of law consistent	2.350239	2.132353	0.0826	*
Management's days dealing with regulation (in a year)	20.88071	15.6562	0	***
% of annual sales as informal payment	1.162717	0.5433071	0.0015	***
Number of tax inspections	3.987805	5.423406	0.0054	***
Import license (n days)	24.44225	28.9558	0.1557	
Operating license (n days)	72.98438	58.78795	0	***
Obs. Tax rates	1.62776	1.795119	0.0001	***
Obs. Tax administration	1.474651	1.602966	0.0018	***
Obs. Business licensing and permits	1.253846	1.41875	0.0001	***
Obs. Macro instability	2.09872			
Obs. Political instability	2.197085	1.657745	0	***
Obs. Corruption	2.140407	1.851873	0	***
Obs. Restricted hours of operation	1.273684			
Obs. Prices mark-ups	1.345946			
Obs. Restricted access to financing	1.20727	1.384136	0	***
% of workers with high school		78.52128		
Obs. Labor regulation	1.258675	1.587006	0	***
Obs. Inadequate workforce	1.645649	1.992086	0	***
% skilled workers	0.6521649	0.6136991	0.0424	**

Source: Author's calculations using WB Enterprise Surveys, several years.

Table 3.7-4. Results of alternative linear regression (Latin America and the Caribbean).

OLS: % of foreign ownership as dependent	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XII	XII	XIV	XV
H3 Subsidiary years of operation	-0.00151***	-0.00143**	-0.00151***	-0.00104*	-0.00122*	-0.00130*	-0.00138**	-0.00141*	-0.00138**	-0.00123*	-0.00135*	-0.001	-0.001	-0.001	-0.001	-0.001
H4 % of skilled labour as % total	0.0834*	0.066	0.064	0.059	0.068	0.056	0.065	0.061	0.062	0.057	0.066	0.071	0.062	0.062	0.040	0.072
H1b quality certificate	0.0539*		0.023													
H1a foreign licensed technology		0.136***	0.130***	0.138***	0.135***	0.141***	0.142***	0.155***	0.137***	0.131***	0.161***	0.118***	0.112***	0.166***	0.113**	
H2 technological intensity sector				-0.012	-0.007	-0.011	-0.010	-0.016	-0.01	-0.011	-0.010			-0.0304*	-0.015	
H5 % of inputs of foreign origin				0.000792*	0.001	0.000793*	0.001	0.001	0.000828*	0.000846*	0.001		0.000986*	0.001	0.00118*	
H9 % of direct exports over sales				0.00129***	0.00127***	0.00132***	0.00129***	0.00105*	0.00130***	0.00121**	0.00118*		0.00138**	0.00163*	0.00154**	
H7 Courts are fair						0.0366**	0.0290*	0.0494**	0.0286*		0.0470*			0.0792***	0.0485**	
H6 Political instability is obstacle							-0.0238*	-0.0311*			-0.0275*			-0.007		
Days to clear customs								0.001			0.001			0.001		
H8a Corruption as an obstacle									-0.014	-0.017						
H8c Management days dealing with regulation										-0.000						
Caribbean dummy													0.035			
Central American dummy					0.040						0.249*				-0.053	
South America and Mexico					-0.001						0.185		-0.022			-0.051
International crisis dummy					0.108***						0.106**		0.063			0.053
Services dummy																
H8b % of annual sales as informal payment												-0.0144**	-0.0138*	-0.011	-0.0111*	
cons	0.579***	0.564***	0.557***	0.501***	0.427***	0.435***	0.494***	0.486***	0.477***	0.550***	0.212	0.546***	0.443***	0.352***	0.390***	
N	1413	1413	1413	1380	1380	1333	1326	777	1317	1323	777	880	869	482	829	

Source: authors' calculations. ***, **, and * signal significance of coefficients at 1%, 5% and 10% levels, respectively.

Table 3.7-5. Binomial logit results for FDI subsidiaries established in the rest of the world (non in Latin America and the Caribbean).

Rest WLD	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
H3 Subsidiary years of operation	-0.0233***	-0.0246***	-0.0235***	-0.0240***	-0.0240***	-0.0241***	-0.0238***	-0.0234***	-0.0240***	-0.0241***	-0.0238***	-0.0254***	-0.0242***	-0.0273***	-0.0252***
H4 % of skilled labour as % total	-0.12	-0.147	-0.121	-0.214	-0.115	-0.21	-0.189	-0.584*	-0.181	-0.256	-0.545*	-0.078	-0.012	-0.549	-0.068
H1b quality certificate	-0.202*		-0.227*												
H1a foreign licensed technology		0.050	0.108	-0.006	0.007	0.012	0.018	-0.031	-0.002	-0.044	-0.023	0.024	-0.028	-0.016	-0.006
H2 technological intensity sector				-0.017	-0.001	-0.014	-0.018	0.036	-0.011	-0.015	0.039			0.056	0.061
H5 % of inputs of foreign origin				0.00387**	0.00372**	0.00350**	0.00314*	0.00838***	0.00362**	0.00407**	0.00841***		0.00308*	0.005	0.002
H9 % of direct exports over sales				0.00389**	0.004486***	0.00333*	0.00347**	0.00599**	0.00269*	0.00293*	0.00636**		0.00402*	0.005	0.003
H7 Courts are fair						0.090	0.046	0.099	0.037		0.11			0.039	0.114
H6 Political instability is obstacle							-0.121***	-0.131*			-0.118*			-0.053	
Days to clear customs								-0.013			-0.012			-0.0324*	
H8a Corruption as an obstacle									-0.142***	-0.119***					
H8c Management days dealing with regulation										-0.00745*					
Caribbean dummy															
Central American dummy															
South America and Mexico															
International crisis dummy					-0.429***						-0.176		-0.434***		-0.474***
Services dummy															
H8b % of annual sales as informal payment												-0.003	-0.004	-0.030	-0.009
_cons									0.695***	0.883***	0.199	0.825***	0.749***	0.732	0.550*
N									1916	1931	771	1400	1384	474	1292

Source: authors' calculations. ***, **, * signal significance of coefficients at 1%, 5% and 10% levels, respectively.

CHAPTER #04

HOW REGIONAL INTEGRATION AND TRANSNATIONAL ENERGY NETWORKS HAVE BOOSTED FDI IN TURKEY (AND MAY CEASE TO DO SO)

A CASE STUDY

4.1. Motivation

Turkey constitutes a very interesting case to study capital flows and, more concretely, foreign direct investment (FDI). The country counts with an enviable geo-strategic location both for business and international relations (Brzezinski, 1997). Additionally, it has traditionally enjoyed privileged relations with the United States and the European Union¹⁸. Turkey embraced structural adjustment programs in the eighties and capital account opening in the nineties. However, in spite of these reforms, if we compare to other emerging markets with similar levels of per capita GNI such as Mexico or Brazil, Turkey has been traditionally characterized by low levels of FDI (just around 0.5% of the GDP for most of the 1980s and 1990s). In fact, during the 1990s and early 2000s, the country suffered several sudden stops associated to short

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Turkey has been an associate state to the European Economic Community since 1963, which implied progressive reduction in import tariffs (Ankara Agreement); in 1999 the Helsinki European Council recognised Turkey as a candidate for EU membership; in 2005 accession negotiations to the EU started officially.

term capital outflows. It will be necessary to understand the reasons behind this disappointing performance in attracting and keeping foreign capital.

Most of the authors consider that macroeconomic instability has been the main deterrent of foreign direct investment in Turkey (e.g. Uctum and Uctum, 2005; Basar and Tosunoglu, 2006). Faulty institutions and the slow pace of privatization have been also blamed (Erdilek, 2003; Dumludag et al., 2007). The question now is whether this explanation, which seems to fit well with the events of the 1990s, is sufficient also to account for the surge in FDI inflows experienced in the second half of the 2000s.

In principle, one may think that increasing FDI inflows observed since 2005 is just the product of the enhanced economic and political stability brought by the successive governments of Erdogan's Adalet ve Kalkinma Partisi (AKP, assuming office in November 2002). However, in line with Sayek (2007), we will argue in this paper that enhanced macroeconomic and political stability is a necessary but not sufficient condition to attract FDI, and that EU accession negotiations (launched in 2005) have been more influential.

Thus, it is the aim of this paper to understand how evolving relationships with the EU and the accession process have enhanced FDI attraction in Turkey (and may cease to do so). We try to contribute to existing research in the following ways: (i) by complementing with a country specific case study existing cross country analysis of FDI determinants; (ii) by bringing regional integration considerations to the literature discussing FDI in Turkey; and (iii) by presenting a geostrategic perspective to help explaining the relevance foreign investment in energy has lately acquired.

Drawing from the qualitative framework elaborated by Blomstrom and Kokko (1997), our analysis suggests that the EU-Turkey Customs Union Agreement of 1996 did not help significantly expanding FDI inflows because implementation considered a 5 year grace period for the alignment of certain

trade policy aspects, and it did not entail free capital mobility (as that enjoyed by the members of the Common Market). On the other hand, the official start of EU Accession Negotiations in 2005 involved a wide set of accompanying reforms in 35 chapters of the *acquis communautaire*, including free movement of goods, right of establishment to provide services, competition policy, financial services, energy, regional policy or the Customs Union. Substantial progress in the business environment associated to the accession process has helped enhancing Turkey's appeal for the foreign investor. We also find how, even when remaining significantly above the levels observed in the 1990s and early 2000s, FDI inflows to GDP have somewhat contracted since 2009, in the context of the global financial crisis resulting in a change in EU priorities and weaker accession prospects for Turkey. Only in the energy and electricity sectors FDI inflows have significantly expanded, probably due to European interests in creating transnational energy corridors involving Turkey.

The remaining of this chapter is divided as follows. Section 4.2 presents a brief look at economic and political developments occurred over the last three decades in Turkey. Set the background, we move to summarize the main research findings contained in existing literature discussing FDI in Turkey (4.3). Section 4.4 presents the qualitative discussion on the effects of different EU integration stages on foreign investment. Section 4.5 looks at the concrete case of booming FDI in the energy sector, which needs to be explained by looking at trans-regional logistics and geopolitical factors. Section 4.6 concludes.

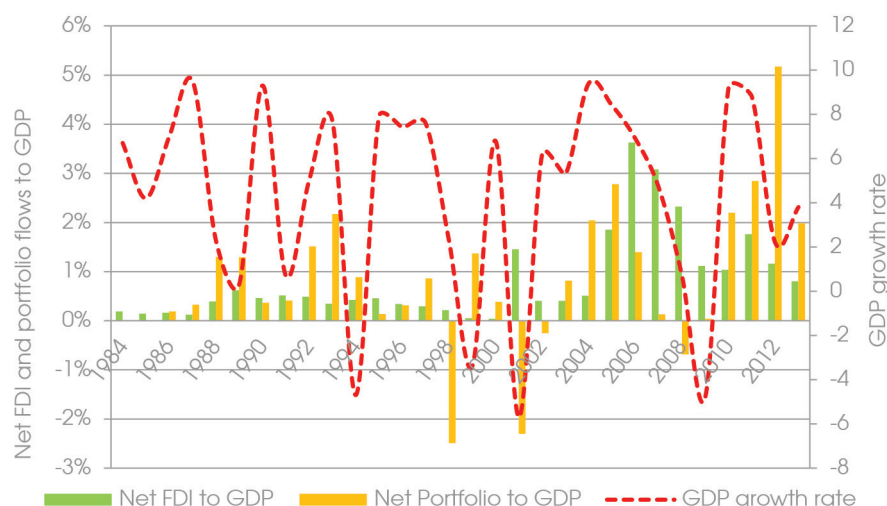
4.2. Three decades of liberalization in Turkey

In the aftermath of 1979's foreign exchange crisis, Turkey signed a "Structural Adjustment Loan" with the World Bank in March and a three year deal with the IMF in June. The recovery plan implied to transform an exhausted import substituting model into an export oriented open economy (see Önis,

1998). During the 1980s, Turkey experienced a relatively successful growth and export performance, but at the expense of real wages and increasing income inequalities (Botarav and Yeldan, 2001).

Economic liberalisation and the previously mentioned market-orientated measures, promoted by Turgut Özal's government, did not enhance foreign investment attraction significantly. Önis (1994) argues that the orthodox approach of shifting incentives to foster FDI is insufficient if investors do not rely on the sustainability of the new regime. A large foreign debt stock, lack of trust between foreign companies and the government, and the persistence of subsidies and protectionist measures in certain sectors were probably some of the reasons why inward FDI continued to be low during the 1980s.

Figure 4.2-1. Capital flows and sudden stops in the Turkish economy.



Source: Central Bank of Turkey and IMF Article IV estimates (December 2013)

In 1989 Turkey took a step ahead in its liberalisation process by fully opening its capital account to foreign flows (Önder, 2007). This measure has been subject of controversy, as macroeconomic instability increased and

the country was exposed to several sudden stops in the following decade (1994, 1998 and 2000-2001). Moreover, the country was not able to increase significantly FDI attraction, as most of the inward capital flows were driven by short term speculative purposes.

Demir (2004) summarizes the different explanations given to the unsatisfactory performance of Turkey during the 1990s. On the one hand, existing bureaucracy and domestic institutional inefficiencies could have had a negative impact on the outcome of the reforms (see, for instance, Celasun et al., 1999). On the other hand, while recognizing disturbances introduced by the government, most of the Turkish economists (Önis, 1998; Botarav and Yeldan, 2001) attribute the problems to deficiencies, such as insufficient consideration of the distinguishing features of the Turkish economy during the adoption of liberalization. A third view is that of a timing-failure in the execution of the different reforms.

The mentioned decade of political and economic instability ended up with Turkey suffering from twin crises in November 2000 (mainly of financial nature) and February 2001 (currency and balance of payments crisis). Interestingly, the economic slump would be the turning point leading into a new era. The fact that the collapse was severe and widespread across sectors and economic actors, the figure of Kemal Dervis as a coordinator of government's dialogue with the International Monetary Fund (IMF) and the World Bank (WB), and EU membership prospects are some of the factors identified by Arpac et al (2008) as helpful to overcome the pressures of interest groups and start the implementation of an ambitious set of reforms in the aftermath of the crisis.

Erdogan's AK party succeeded at General Elections in November 2002. Despite some fears that the new inexperienced government could re-initiate the adoption of populist measures and fiscal indiscipline, in fact they fully committed to continue the ambitious reform program set up by the previous coalition (led by Kemal Dervis). Moreover, the AKP has been continuously

pursuing an increase in market orientation and adoption of European standards, facilitating this way an improved investment framework.

New FDI regulation came into force in 2003, removing the requirement of obtaining a permission to create new companies with foreign capital and easing the investment process. In addition to that, reforms included a new capital markets law, enhanced corporate governance measures and accelerated privatization. In October 2005 negotiations with the EU regarding Turkey's accession officially started. This process helped to accelerate economic and institutional reforms, which reinforced stability and business expectations until the outbreak of the world financial crisis in 2008 (see Uckun and Doerr, 2010).

The country suffered a severe net portfolio outflow in 2008, as the economy started to head into recession, which was perceived in advance by the markets. However, unlike the crises of 1998-99 and 2001, portfolio flight was moderate (0.7% of GDP, compared to more than 2% of GDP in the previous crises), and this time it was compensated by large FDI inflows. Economic growth bounced back well in 2010 and 2011, and large portfolio inflows have returned to Turkey. However, vanishing EU accession prospects combined with a more shaky growth and exchange rate instability seem to have undermined FDI attraction potential, since yearly inflows are less than half those observed prior to the global economic slowdown. The Turkish Central Bank introduced in 2012 a new prudent monetary framework aimed at attaining macroeconomic stability, mitigating the variability of capital flows and reducing the current account gap (Kara, 2012), but this may not be enough per se to anchor the expectations of foreign investors considering the establishment of long term subsidiaries (FDI).

4.3. A literature review on the determinants of FDI in Turkey

Existing literature dealing with foreign direct investment in Turkey is

heterogeneous, presents different focuses and draws from dissimilar theoretical approaches and methodological tools (see Table 4.8-1 in the Appendix D). In order to synthesize existing empirical evidence, we group the studies depending on the determinants of FDI they discuss and the methodology applied.

A first set of articles departs from OLI's eclectic paradigm (see Dunning, 2001), and tries to determine the location, ownership and internalization factors that influence the establishment of multinational enterprises in Turkey. Collection of survey data at the firm level is usually the method adopted by these studies.

Tatoglu and Glaister (1998) conducted a survey on motivations for foreign direct investment in Turkey on a purposive sample of 316 foreign equity ventures. There is evidence that among the most relevant factors influencing location in Turkey are its market size (and the related growth rate) and certain government policies such as the possibility to repatriate profits.

In a similar fashion, Tatoglu and Glaister (2000) examine the location, transaction and firm related factors in the establishment of foreign companies in Turkey. For this purpose, they adopt a managerial approach, drawing mainly from industrial organization models, internalization theory and the eclectic paradigm. Erdilek (2001) has criticised this research for being *<<narrowly focused>>* and providing *<<no in-depth analysis of the economic, political and social factors that determine Turkey's attractiveness as a host country to foreign investors>>*. Tatoglu et al (2003) analyze the determinants for foreign ownership in Turkish manufacturing (wholly owned enterprise or joint venture form). Their findings suggest that there are country-related factors that influence the formula of foreign investment access to the host economy. The authors recommend Turkish policy makers to continue pursuing structural transformation and privatization, but these suggestions do not seem to be clearly derived from the empirical results.

Deichmann et al (2003) use a conditional logit model in order to identify the location patterns of multinational enterprises in Turkey. The location decision will depend more on the characteristics of the industry (productivity, agglomeration of similar firms) and on local conditions (coastal access, infrastructures, etc.). The share of public investment in the GDP of each region does not seem to be an influencing factor. Another group of scholars has looked at the geographical distribution of FDI within Turkey, highlighting increasing regional divergences (Berkoz, 2001; Erkut and Baypinar, 2003; Berkoz and Turk, 2009).

Lenger and Taymaz (2007) study innovation and technology transfer activities in Turkey and observe that foreign owned firms are on average more innovative than domestic ones. They also find that the main channel of spillovers is workers' acquired knowledge. There does not seem to be much evidence of significant horizontal or vertical spillovers at the industry level. Therefore, not all the alleged benefits of FDI may be easily and unconditionally achieved in reality.

Whether these studies usually contain useful guidance from a managerial perspective, they do not always provide hints for the policy maker. As it is acknowledged by some of the authors, this approach needs to be complemented with a macroeconomic perspective to fully understand the determinants of FDI in Turkey (Tatoglu et al, 2003).

A second strand of literature has a wider focus which normally considers macroeconomics and policy determinants of FDI. Their aim is varied, but they have in common the use of a quantitative analytical approach, often in the form of cross country regression.

Erdilek (2003) analyses the causes for the low levels of both inward and outward FDI in Turkey. He blames internal factors such as

<<chronic high inflation, increasing economic instability, inward

orientation until 1980, lack of protection of intellectual property rights, lack of inflation accounting and internationally acceptable accounting standards, failure of privatization, insufficient legal structure and inadequate infrastructure>>.

Erdilek (2003)

Similarly, Basar and Tosunoglu's (2006) conclude that Turkey seems to be attracting less FDI than expected (given the size of its economy), and this is probably a result of high inflation rates and macroeconomic instability.

During the 1980s and 1990s it was believed that capital account liberalization would result in increased foreign investment attraction (see, for instance, Desai et al, 2006). This resulted to be a necessary but not sufficient condition to enhance FDI inflows. Apart from counting with reliable macroeconomic management, a stable investment framework and efficient institutions seem to be necessary to appeal the foreign investor. Dumludag et al (2007) perform cross country regression to find that lack of corruption, transparency, rule of law or security of property rights contribute positively to FDI attraction. In the second part of the paper the authors present the results of a survey which seems to confirm that, in Turkey, macroeconomic instability, inflation and deficient institutions are perceived as barriers to FDI attraction¹⁹.

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Uctum and Uctum (2005) look at Foreign Portfolio Inflows (FPI) and Foreign Direct Investment flows in Turkey with a different methodology: by plugging data into a model in order to understand how punctual crises have affected capital flows in Turkey. They conclude that *<<institutional factors, structural reforms and crises affect both components asymmetrically. FPI is vulnerable to regional contagion (Russian crisis) and responds negatively to financial risk, while FDI is sensitive to economic risk but is not affected by contagion>>.* This result seems to confirm that FDI inflows were deterred during the 1990s due to economic risk, whereas during 2002-2008 foreign investors were attracted by the more stable economic situation.

However their derived conclusion that an improved institutional framework should be the priority is at best tentative and should be tested, since most of the factors considered in the questionnaire have a similar average mark (between 3.5 and 4). It is therefore very difficult to discriminate the most relevant causes from the rest.

A recent study by Bilgili et al (2012) employs Markov Regime-Switching Models to study the determinants of FDI in Turkey from a non-linear approach. They conclude that FDI inflows are positively correlated with economic growth in Turkey, decreasing country risk and expansion in exports, whereas labor costs, imports and currency depreciation expectations have a negative impact on FDI in Turkey. Results point to non-linearities and significant structural breaks in 1988, 1996, 2001, and 2005-2006. While 1988 and 2001 are clearly identified as years in which there was a mayor crisis in Turkey, this is not the case in 1996, and 2005-2006, and the authors attribute this breaks to temporary increases in the risk perception indicator for Turkey due to political developments such as uncertainty under elections and the announcement of the opening of a nuclear reactor. In the next section we will argue that, while the temporal sudden stop in FDI inflows observed in certain quarters in those years may be attributed to the perception of political risk, the underlying reason behind the observed change in trends observed after 1996 and, especially, after 2005 may have also to do with regional integration prospects.

Summarizing, it is possible to affirm that these studies point to economic and political unsteadiness during the 1990s as the main obstacle to inward FDI in Turkey. Therefore, it might be thought that better FDI figures in Turkey since 2005 are just the natural consequence of improved macroeconomic and political stability. A weakness of these multi country exercises is that, while they are useful to identify generic determinants behind variations in FDI trends, they do not assess the impact of concrete reforms in the Turkish investment framework, which may be needed to fully explain the recent amelioration of foreign investment figures in the country.

The third approach differs from previous strands of literature in the sense that they do not attribute fully explanatory power to macroeconomic and institutional factors, as they usually consider a third relevant force: EU accession prospects.

Loewendahl and Ertugal-Loewendahl (2000) concluded that << *Turkey has under-performed in attracting FDI due to the slow pace of privatization and political-institutional obstacles, of which chronic inflation is a manifestation*>>. This view is according to previously mentioned studies. Additionally, the authors introduce the regional dimension by providing an interesting explanation to the low impact of 1996 Customs Union Treaty with the EU on FDI. They observe that, even when announced FDI increased significantly in the aftermath of the agreement, effective investment remained low. This suggests that the government did not address efficiently the interest shown by foreign investors. Even when Turkey was supposed to improve competition law and to introduce industrial and technical standards, the necessary reforms were not always efficiently implemented (Francois, 2005:124)

Another important milestone from the regional integration perspective is the beginning of accession negotiations to the EU in 2005. Zaman (2005) predicted an increase in inward FDI to Turkey in the aftermath of the deal, something that seems to have been confirmed. Similarly, Dutz et al. (2005) also argued that the opening of EU accession negotiations would be beneficial for inward FDI, given that Turkey committed to progress in the adoption of the common *acquis*. According to Uckun and Doerr (2010), the combination of improvements in the domestic investment framework (FDI law, capital market reforms, banking sector reforms), together availability of global financial funds during 2003-2008 facilitated the unprecedented increase of FDI inflows.

As early as 2007, Sayek already concluded that the recent upsurge in FDI in Turkey has been mainly caused by the beginning of accession negotiations to the EU, whereas the success in inflation reduction has not had a relevant impact. Additionally, institutional variables are found to contribute positively to inward FDI flows, which confirms results by Dumludag et al (2007).

More recent studies also highlight the relevance of regional integration for FDI in Turkey. Esiyok (2011) uses a gravity model based on the knowledge-

capital theory and confirms most of the results obtained by previous authors like Sayek on macroeconomic and institutional determinants of FDI. In addition, he finds that foreign investors in Turkey are mainly motivated by market access purposes (horizontal FDI), as the costs of exporting to Turkey are relatively high (compared to other OECD countries). The results on market orientation are similar to those discussed by Çetin and Taban (2009) and Onaran (2009). In addition, according to Esiyok (2011), FDI flows to Turkey respond positively to the EU accession process, as well as to bilateral trade treaties with third countries. Similarly, Gungor and Binatli (2010), when analyzing a panel data consisting of eleven countries involved in EU accession at different stages, including Turkey, conclude that progress in this process result in a significant increase of FDI inflows. According to Bosco (2011), Turkey still presents an unexploited potential in terms of additional FDI stock, ranging 200% to 1000%; further progress in EU accession could help to take advantage of this potential.

In sum, this third set of articles generally recognizes the importance of macroeconomic instability and institutional and political obstacles to FDI during the 1990s. But, when the recent upsurge in inward FDI in Turkey is considered, almost all of them point to regional integration –and concretely EU accession negotiations- as one of the key factors. These studies usually introduce a dummy variable in their regression in order to try to capture the effect of regional integration on FDI, but this approach has the limitation that it operates as a black box that does not have explanatory power to understand the underlying motivations and determinants of the decisions made by international investors. In this sense, it is the aim of this chapter to complement this third strand of the literature with a deeper explanation of why and when regional integration processes motivate foreign direct investment.

4.4. Regional integration and FDI in Turkey: a qualitative framework analysis

It has been argued by most recent studies that regional integration and, concretely, the official start of accession negotiations with the European Union is one of the main factors explaining the significant increase in FDI flows to Turkey observed in the second half of the past decade. In this section, we discuss the role of regional integration in foreign investment in Turkey drawing from the qualitative analysis framework elaborated by Blomstrom and Kokko (1997). Concretely, we wonder why FDI did not start to flow earlier, considering that Turkey signed a Customs Union agreement for industrial products with the European Economic Community in 1996, which was a notable step towards regional integration.

4.4.1. Regional integration: Customs Union agreement with the EU and inward FDI in Turkey

In principle, an increase of extra-regional FDI in Turkey in the aftermath of this 1996 Customs Union agreement on industrial products would be expected, since foreign multinationals could use the country as an export platform to serve the EU. Additionally, a raise in vertical European investment in Turkey would offset the theoretical decrease in the number of previously installed market seeking multinationals (which do no longer face tariffs and can serve the Turkish market from the country of origin).

By looking at the data, it is possible to observe that European investors were already dominating foreign investment in Turkey prior to 1996. Except for the Netherlands (+13%), the United Kingdom (-7%) and Switzerland (-7%), there are not significant variations in most of the countries' share of contribution to FDI in Turkey if we compare the eighties and the nineties. Moreover, the

Customs Union agreement apparently did not alter the share held by European Union investors (EU15) which stayed around 65% both before (1994) and after (1998) the agreement. Even if punctually in 1996 there was an upsurge in Turkish inward FDI dominated by EU investors (85%), it did not last; moreover, in relative terms, total FDI flows to GDP did not increase compared to the previous year. In addition to that, aggregate FDI inflows remained stuck around 0.5% of the Turkish GDP. This is unexpected according to the theory; in this case, a greater degree of regional integration did not lead to a significant boost on FDI from European or extra-regional investors.

The Turkish authors mentioned in the previous section pointed mainly to macroeconomic and political instability as the major deterrents of foreign investment in the 1990s. Nevertheless, a more detailed look at the text of the Customs Union agreement reveals alternative explanations to why foreign investors did not react to the Treaty. The European Community-Turkey Association Council of 1995²⁰ decided on the implementation of a Customs Union (except for agricultural products and coal and steel), which was considered as the final stage envisaged in the Ankara Association Agreement of 1963. The decision encompassed free movement of goods (there are not specific provisions for services) and the alignment of Turkey with the European Community common customs tariff, including preferential arrangements with third parties and harmonization of commercial policy measures; it also suggested approximation to EU intellectual property, competition and taxation laws.

The removal of technical barriers and the alignment of commercial policy with that of the EU was envisaged to be progressively applied over a five year period. This could partly explain that there was not an immediate surge of FDI following the signature of the Customs Union. Moreover, required accompanying reforms (e.g. competition, removal of subsidies) were not fully implemented and the large size of the state continued to drag on economic

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Decision No 1/95 of the EC-Turkey Association Council of 22 December 1995 on implementing the final phase of the Customs Union. Official Journal L 035 , 13/02/1996 P. 0001 - 0047.

development. Additionally, it is worth to remember that a Customs Union agreement does not imply full capital mobility, like that enjoyed by the members of a Common Market (Jovanovic, 1997). Therefore, introduced changes were not sufficient to strongly appeal investors, as Harrison et al (1997) had predicted. This view seems to be shared by Dutz et al (2005), whom put the blame of the Customs Union failure to attract FDI on a static bureaucracy, rent seeking activities and the lack of a stable investment framework. Utkulu and Seymen (2004) did not observe significant shifts in comparative advantages have shifted when Turkey joined the Customs Union with the European Community.

4.2.2. Regional integration: the impact of EU accession negotiations on FDI

In the period beginning in 2003 -and especially from 2005 onwards- there has been an outbreak of FDI flowing to Turkey. Why has this phenomenon happened relatively late, and not before, when the EU and Turkey signed the Customs Union Agreement? Our tentative hypothesis is that, in the last decade, apart from improved economic and political stability, deeper reforms aimed at preparing Turkey towards EU membership has improved investment climate, and , increased expectations of a fast expansion in economic activity.

Talks for the accession of Turkey to the European Union officially started in 2005. The negotiating framework²¹ contains provisions regarding 35 chapters of the *acquis communautaire*. Thus, Turkey has been working to implement new commitments in areas such as free movement of goods, right of establishment to provide services, competition policy, financial services, energy, regional policy or the Customs Union (Council of Europe, 2008). Therefore, accession negotiations involve much more comprehensive reforms than the Customs Union Treaty (that basically dealt with just two of these chapters), which enhances the framework for doing business and investment.

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Accessible at http://ec.europa.eu/enlargement/candidate-countries/turkey/key_documents_en.htm.

Sayek (2007) presents some cross country evidence suggesting that <<... it is in fact the signaling of the membership and the road to membership, rather than the final membership itself, that has the great effect [on FDI]>>. By taking a look at the evolution of foreign investment flows to Turkey over the past decade, it is possible to observe that the surge in capital started in 2005, when Turkey and the EU officially initiated accession conversations, and the momentum lasted until 2008. In the context of the global economic slowdown, accession prospects for Turkey somewhat cooled down, as the European Union had to focus in finding a way out of the crisis, and enlargement conversations lost relevance in the agenda of priorities. At the same time, the latest reports by the European Union point to a slow and unequal implementation of reforms aimed at aligning Turkey with the *acquis communautaire*. So far, accession negotiations have been opened on 13 chapters²² out of a total of 33, and only one of them (science and research) has been provisionally closed (EU Commission, 2013). Even if EU authorities report an advanced stage of alignment in free movement of goods or intellectual property rights, other chapters such as free movement of capital present a more modest progress, and there are many areas in which reforms are still incipient. In addition, prevalent restrictions on the relationships between Turkey and Cyprus prevent since end 2006 the opening for negotiations of eight chapters²³, including the right of establishment. Thus, slow developments and weaker membership prospects could partly help explaining why Turkey is not seeing nowadays the same level of FDI inflows observed in 2005-2008.

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Science and research; Enterprise and industry; Statistics; Financial control; Trans-European networks; Consumer and health protection; Intellectual property law; Company law; Information society and media; Free movement of capital; Taxation; Environment; and Food safety, veterinary and phytosanitary policy,

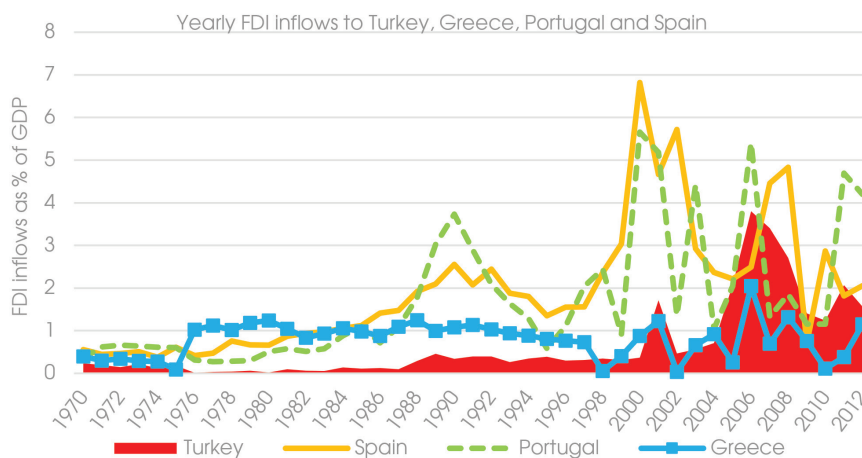
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Free movement of goods, Right of establishment and freedom to provide services, Financial services, Agriculture and rural development, Fisheries, Transport policy, Customs union, and External relations.

Blomstron and Kokko (1997) provide an interesting theoretical framework to assess overall impact of regionalization on FDI attraction according to the location of the host country and the degree of environmental change derived from the agreement. From this perspective we could be able to explain the differences in performance between Spain and Greece (once they joined the European Community) or Mexico and Canada (most and least benefited respectively from NAFTA), as well as the advantages of Brazil and Argentina compared to Paraguay and Uruguay in Mercosur.

Portugal, Spain and Greece joined the European Community in 1986; however, whereas Portugal and Spain were able to double their average yearly FDI inflows to GDP in 1986-1990 compared to 1980-1985, Greece did not significantly increase its levels during the decade of the eighties. This could be explained by the fact that, even when membership encompassed similar environmental changes (and opportunities) for the three Mediterranean countries, Greece was by that time relatively isolated in terms of location from the rest of the European markets. Similarly, it is possible to observe that CUSFTA agreement has had a lower impact for Canada than the NAFTA treaty for Mexico. The reason is that NAFTA is an extended version of CUSFTA that consider deeper integration (stronger “environmental change”); additionally, Mexico has an advantageous location in the region with respect to Canada.

Figure 4.4-1. FDI flows as a % of GDP in selected countries.



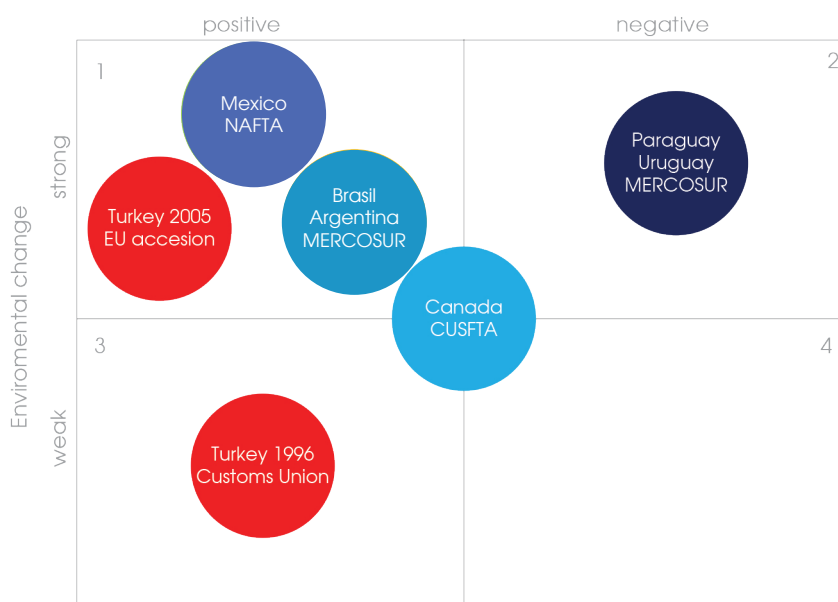
Source: UNCTAD

Drawing from this methodology, that classifies regional integration agreements according to its probable impact on foreign direct investment, we try to illustrate the Turkish case. The following diagram shows four blue ellipses, which corresponds with the position attributed by Blomstron and

Kokko (1997) to their four case studies.

In the same fashion, it might be argued that the Customs Union Agreement signed by the EU and Turkey in 1996 did not help the latter to attract FDI significantly because it did not imply a strong “environmental change”. As it has been mentioned previously, the scope of the agreement was limited, and technical barriers and obstacles to investment persisted. Therefore, despite its theoretically advantageous location to serve Europe, Turkey had problems to appeal foreign investors in the second half of the nineties.

Figure 4.4-2. Expected impact of regional integration agreements on FDI.



Source: elaborated following Blomström and Kokko (1997a)

On the other hand, the beginning of EU accession negotiations in 2005 was accompanied by a wider and deeper set of reforms in different fields such as business, economics, politics or even human rights. This wider and more

credible “environmental change” has helped improving both the investment climate and business expectations in Turkey. Therefore, now it can be argued that the Turkey-EU accession partnership should be located in quadrant one, together with other regional agreements contributing positively to FDI. In addition, Turkey moved a little bit to the left hand side of the graph, reflecting increasing locational advantages, as ten Eastern European countries joined the EU in 2004.

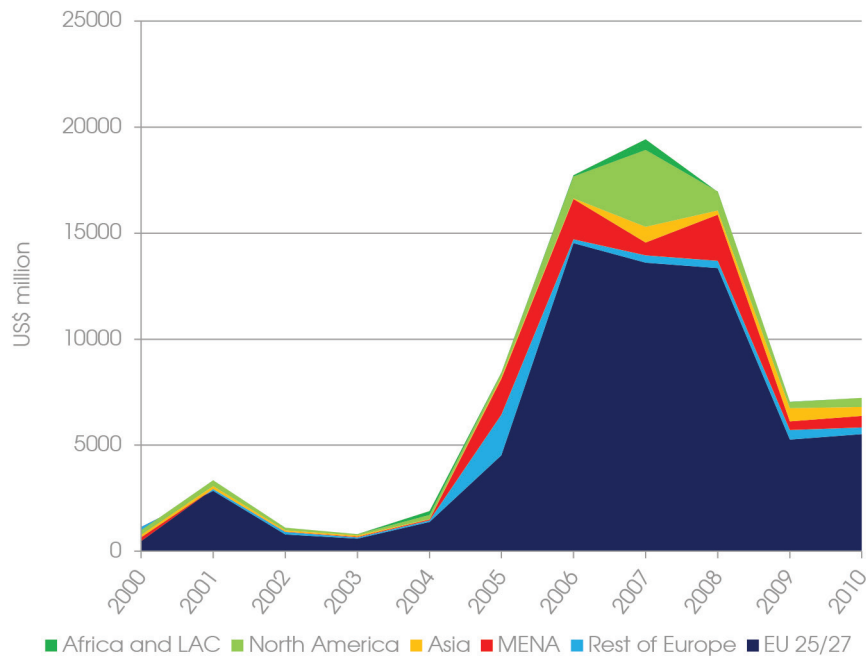
Furthermore, we will argue that, given that Turkey is not a member of the EU yet, the relative position of the Accession Partnership agreement may change dynamically over time, and weaker membership prospects would mean that the expected environmental and doing business change in Turkey could be narrower than initially expected. This could result in international investors aiming at serving the EU market less prone to establish their facilities in Turkey.

How has the beginning of accession negotiations between Turkey and the EU affected the geographical origin of FDI flows? Even when it would very difficult to isolate the effects of regional integration on capital flowing to Turkey, stylized facts lead to the intuition that it may have been a relevant factor. As shown in Figure 4.43, both intra and extra regional flows increased significantly since 2005, when the EU gave green light to the accession process. It is worth noting that these developments took place in the context of expansion in global capital flows; in fact, FDI flows declined sharply in 2009 and 2010, in the context of global economic slowdown, and with cooling down EU accession perspectives for Turkey.

Interestingly, even when FDI flows from EU members increased in absolute terms in 2005-2008, in relative terms, Middle Eastern and Other European investors were more avid in bringing capital to Turkey (flows from these regions increased by 29 and 23 times respectively in 2005). This seems to conform to the theory, which predicts that FDI from third countries outside the region (in this case the EU) will increase more than intraregional FDI

when a regional integration treaty is signed. (te Velde and Bezemer, 2006; Blomstrom and Kokko, 1997; Stein et al., 2003). Indeed, European Union accession negotiations are accompanied by a series of improvements in the business framework and a series of positive externalities from which not only EU companies but also investors from other countries expect to benefit.

Figure 4.4-3. Evolution of FDI flows to Turkey over the past decade.



Source: Author's elaboration from OECD stats, WDI

By sector, following the beginning of EU accession negotiations, the largest foreign investments in Turkey have taken place in financial intermediation (47% of total FDI inflows in 2005-2008), transport, storage and communications (21%), and wholesale and retail trade (6%). This gives us the intuition that services and market oriented FDI dominates the recent inflow upsurge, which is in line with the findings in Esiyok (2011).

Table 4.4-1 Evolution of FDI flows to Turkey by sector over the last decade.

Average FDI flows by sector, % over total	2002-2004	2005-2008	2009-2013
Primary sector (including mining)	3.0%	1.2%	2.4%
Secondary sector	29.2%	17.2%	24.7%
Electricity, gas and water supply	8.6%	2.7%	24.7%
Construction	0.6%	1.5%	5.1%
Transport and communications	18.0%	21.1%	4.6%
Financial intermediation	15.6%	47.7%	26.3%
Other services	25.1%	8.5%	12.2%
Yearly average FDI flows in the period (US\$ million)	905	11863	9921

Source: Author's calculations based on Central Bank of Turkey and Ministry of the Treasury data

In 2009-2013 it is possible to observe a different sector distribution pattern, as FDI directed towards manufacturing in Turkey recovers some of its relative weight, financial intermediation and transport and communications contract sharply, and foreign investment in Turkish utilities and energy surges and has become nowadays the principal activity attracting foreign capital.

At this point, one may wonder which part of the huge amounts of foreign funds invested in Turkish financial intermediation and communications have been attracted by the privatization process. If the weight of privatization operations was large, that would mean that the rise on FDI may be a transient phenomenon after which Turkey will return to inflow levels of 0.5% to 1% of GDP. Most of the papers on privatization in Turkey are from the early 2000s (Karatas, 2001; Simga-Mugan and Yüce, 2003), which does not allow us to clarify the effects of the acceleration of reforms after 2005. Thus, we gather recent data and reports from the Turkish Privatization Administration and focus on operations involving FDI. According to the official statistics, except for 2001, FDI through privatization seems to represent just a small proportion of

total inflows. For example, if we look at the top five FDI inflows in 2008, only the acquisition of *Tekel Sigara* by a British company is a privatization operation.

At the end of the 1990s, Loewendahl and Ertugal-Loewendahl (2000) argued that <<[a] key reason for Turkey's overall under-performance is the minimal level of privatisation-related FDI>>. The sale of an increasing number of state-owned companies in 2005-2010 has not been the main contributor to the upsurge in FDI inflows, as most of them have been acquired by Turkish companies.

In our view, privatization has probably contributed to recent FDI upsurge in two ways: directly by selling some State Owned Enterprises to foreign investors; and indirectly by promoting the image of a more solid and liberalised Turkish economy around the world. But, overall, privatization has only played a secondary role in boosting FDI to Turkey (Tulug, 2004).

Summarizing, the Customs Union Treaty of 1996 neither significantly enhanced investment nor changed the origin of inward FDI in Turkey. On the other hand, FDI boomed once Turkey's accession negotiations to the EU officially started (2005). One can explain the different impact of both regional integration processes on foreign investment by looking at the provisions considered in the agreements, as well as their implementation. We have argued that the EU-Turkey Accession Partnership has a much wider scope than the Customs Union Treaty (which did not entail free capital movement). Additionally, the AK party – governing since 2002 – has shown commitment in the implementation of institutional reforms, whereas the Customs Union Treaty was agreed in a period of political instability and weak governing coalitions in Turkey.

Recently, the global financial and economic crisis, coupled with weaker EU accession prospects has resulted in net FDI to GDP inflows to Turkey losing some steam (1.2% on average in 2009-2013, compared to 2.7% in 2005-2008). As observed in Table 4.4-1, large foreign investment in electricity and energy

have prevented the collapse of FDI inflows. The next section discusses some potential explanations behind this trend.

4.5. Case study: the energy sector in Turkey

In this section we adopt a narrower focus to try to obtain a deeper knowledge on how EU accession negotiations and the acquisition of the communitarian *acquis* may have facilitated the increase of FDI flows to Turkey, especially in 2009-2013. This is related to our hypothesis that prospects of EU accession are one of the main motivations causing the FDI upsurge observed since 2005. Energy is arguably a key for foreign investors in Turkey for three main reasons: recent legislative reforms, the relevance of Turkey for the energy security strategy of the European Union, and an accelerated privatization process (which does have a notable role in this specific sector).

4.5.1. Reforms and laws issued in the energy sector

The reforms in this field are still recent, which implies that liberalization and competition frameworks are under improvement.

On the 3rd of March 2001, an Electricity Market Law (EML, No. 4628) was issued to set the framework for a more competitive and transparent electricity market. The old state owned giant, TEAS, was divided into three new companies, in order to separate electricity transmission, generation and commercialization activities.

Similarly, on the 2nd of May 2001, a Natural Gas Market Law (NGML, No. 4646) came into force with the ultimate purpose of liberalizing the sector. It includes provisions to force a progressive diminution of the gas import contracts

24.

BOTAS is the Turkish to Pipeline Corporation. During the 1990s the company officially enjoyed the right to monopolize natural gas distribution. The Natural Gas Market Law of 2001 abolished this right.

in the hands of BOTAS²⁴ to 20% in 2009 (Hacisalihoglu, 2008).

25.

EPDK, 2007. "Manual For Energy Investors". Republic of Turkey, Energy Market Regulatory Authority. May, 2007.

On the 19th of November 2001, the Energy Market Regulatory Authority (EMRA) was created. Its purpose is to regulate the markets, issue operating licenses in the different sectors (Electricity, Gas, Petroleum) and, ultimately, help to achieve the transition to competition²⁵. Later, the Petroleum Market Law (PML, No. 5015, 20 December 2003) and the Liquefied Petroleum Gas Market Law (LPGML, No.5307, 13 March 2005) removed import quotas and liberalized market activities in the oil and LPG sectors.

These and related reforms in the energy sector have not only been motivated by the need to meet future energy demand in the country, but also continuously encouraged by the dialogue between Turkey and the European Union. Following the European Council of Helsinki (December, 1999), a first Accession Partnership for the new candidate state was issued (Council of Europe, 2001). The document already emphasized the need of improvements in the energy chapter, with the progressive acquisition of the EU *acquis*, the establishment of an independent regulatory authority and the implementation of the electricity and gas Directives. Since then, the EU has been issuing regular progress reports, as well as updating the Accession Partnership, always monitoring the developments of the energy sector.

When the implementation of reforms is slow or insufficient, the EU will reflect it in its documents and ask for a strengthen dedication to match requirements. For example, the EU Commission (2008) denounced in 2007 that BOTAS still imported 86% of the natural gas consumed in Turkey, when, according to the law, by 2009 the share of the company should be of only 20%. This example illustrates the fact that in some areas competition remains limited. Yet, it also proves EU commitment to monitor the liberalization of the energy sector in Turkey. Thus, we argue that the pace of this process will clearly remain linked to progress made in European integration.

4.5.2. *The Geo-strategic relevance of Turkey as an energy hub*

The role of Turkey as an energy bridge between East and West has been widely studied from a geostrategic and energy security perspective (Ozturk et al, 2011; Akdemir, 2011; Tagliapietra, 2012, 2013). In addition, even if, with a consumption of 58 million BTU²⁶ per capita in 2007 Turkey was below world average, natural gas demand is expected to growth at a yearly average rate of 4.9% between 2010 and 2020, with manufacturing facilities and power plants as the main customers (Hacisalihoglu, 2008). The dependency on foreign energy sources caused a severe crisis in Turkey during the seventies, as oil prices surged, and with it balance of payments deficit and inflation. Since then, and given the lack of significant oil and gas reserves, Turkey has tried to take advantage of the geographical position in order to be part of different energy corridors that can help diversifying supplies. An the attraction of foreign direct investment depends also on market conditions, as discussed by Bilgili et al (2012), who find that in fast FDI growth periods (such as 2005-2010), FDI inflows to Turkey are negatively correlated to the price of electricity and the prices of oil and gas in the domestic market.

26.

Source: www.eia.com.
British Thermal Unit,
equivalent to 1.055
kilojoules.

In addition, strategic decisions in the energy field are intimately interlinked to foreign policy and the relationships with energy-rich neighboring countries (Russia, Iran, Iraq, Azerbaijan, Kazakhstan, Turkmenistan, etc.). Approximately three quarters of world's proven natural gas and oil resources are located in Russia and the Middle East and Caspian Regions. According to Ozturk et al (2011), Turkey's national energy policy involves reducing dependency and diversifying geographically the sources, ensuring sustainable, high quality and cheap supplies, and functioning as a transmission hub.

The key role of Turkey in natural gas and oil distribution is formally recognized in the Trans European Energy Networks project (TEN-E) and the Energy Security Strategy of the European Union (see European Commission,

27.

On European Energy security see the INOGATE Network, European Energy Strategy.

2006). Even if oil and natural gas deposits in Anatolia are scanty and national production is low (EIA, 2009), Turkey is very relevant as a transit country, and it is considered a potential alternative route to diminish EU dependency on Russian natural gas²⁷.

Turkey counts with two main oil pipelines to import crude from Azerbaijan and Iraq. Both routes end at Ceyhan, one of the main crude export seaports in the Mediterranean sea, together with Izmir and Istanbul. All of them count with refineries in their proximities; Turkey exports part of their production of refined oil and derivatives to different countries such as Italy, Singapore or even the United Arab Emirates. Still, it is important to bear in mind Turkish dependence on Russia and Iran, its main oil suppliers, which complicates Turkey's political alliances and regional strategy. On the other hand, Turkey has some leverage on the transit of ships through the Bosphorus, and has recently limited the size and the number of tankers going through the straits. This is one of the reasons why Russia is considering several projects to by-pass the Bosphorus.

In what regards natural gas, Turkey is being supplied through ground routes coming from Russia (Blue Stream and West Pipeline), Iran (Shah Deniz pipeline) and Azerbaijan (Shah Sea pipeline). Turkey is also purchasing Liquefied Natural Gas (LNG) to Nigeria and Algeria, and has recently started to export gas to Greece through an inter-connector that crosses the South straits of the Marmara Sea, and could eventually be used to transport natural gas to Italy (see Özturk et al, 2011).

Looking ahead, Turkey is willing to take advantage of its strategic geographical position to become an energy hub in between the Middle East, Central Asia and Europe (Saivetz, 2009; MFA, 2009). At the same time, the European Union has manifested an interest to build trans-national energy networks and, more concretely, alternative routes to diminish its dependency on Russian gas.

In this context, on July 2009 four EU members and Turkey reached an intergovernmental agreement to allow the construction of a large pipeline (31 Bcma²⁸) called *Nabucco*, which would transport Azeri gas to Austria²⁹. This flagship European project was for some time one of the best bets by Turkey to eventually become a full EU member. However, *Nabucco* faced the problem that Azerbaijan itself cannot supply enough gas to fill the pipe, there was international controversy with Iran, and the project of a Trans-Caspian link to access Turkmenistan is blocked by legal disputes over Caspian waters (Cornell and Nilsson, 2008:141-154). According to Erdoğan (2010), the problems in securing guaranteed supplies of gas for the project would ultimately result in lack of sufficient financing.

28.

Billion cubic meters per annum.

29.

Euroactive (2009)
EU countries sign
geopolitical *Nabucco*
agreement, 14th July.

In addition, Russia announced a *South Stream* pipeline, which plans to go from the Russian Caucasus directly to Bulgaria and Central Europe, to challenge the *Nabucco* project (see Baran, 2008). In the end, Turkey conceded to participate also in this *South Stream*, allowing the pipeline to go through its territorial waters, as per an agreement with Moscow signed in December 2011. At the same time, in December 2011, Turkey signed a Memorandum of Understanding with Azerbaijan, aimed at building a larger *Trans Anatolian Pipeline* to transport gas from the Shah Deniz field through Georgia. This ultimately resulted the likely defeat of *Nabucco* in favor of this BP-SOCAR project to develop a *Trans Adriatic Pipeline* (TAP), with capacity to transport 10-20 Bcma. TAP is planned to be connected to the *Trans Anatolian Pipeline* and the existing Turkey-Greece interconnector. The Shaz Deniz consortium opted in June 2013 for supplying Europe through a *Trans Adriatic Pipeline* instead of waiting for an eventual *Nabucco* pipeline (Roncero and San Martín, 2013).

In sum, there is an authentic geo-strategic chess battle taking place around Turkey in the energy field. In this context, delayed EU accession and recent tensions with Israel may well cause that Erdoğan's AK party turns the back on the traditional allies of Turkey just to get closer to old rivals like Iran or

Russia (see Bhadrakumar, 2008). In fact, delays and indecision in Europe around has resulted in Turkey supporting other pipelines with Russia and Azerbaijan, which has de facto killed the Nabucco project; the last EU's energy infrastructure vision is characterized by its short-sightedness, and does no longer consider a flagship corridor such as Nabucco (Escribano, 2013).

We will argue that, depending on policy choices and regional integration decisions in the following years, gas and oil will be more likely to flow one way or the other, affecting both trade flows and multinational establishments in the energy sector. For instance, as we discuss in the next subsection (4.5.3), companies such as Austrian OMV, which had already been investing in Turkey to set the stage for Nabucco, are likely to have suffered a severe downturn when Ankara opted to support other pipelines. Even if, in the end, Azeri gas is still likely to flow to Southern Europe through Anatolia, (Central) European energy investors are likely to have seen damaged their prospects by this alternative, smaller-scale pipeline, which in the end could imply a lower potential of energy-related FDI flows to Turkey in the following years.

4.5.3. Foreign Direct Investment and Privatization

Which are the links between this geopolitical game and FDI in the energy sector in Turkey? Even when it is difficult to identify clear and obvious relationships, a look at the main merge and acquisition operations in the sector shows that Austrian OMV and German RWE, both participants on the construction of Nabucco, were among the most active actors in utility deals in 2008-2010. At the same time Gazprom was taking positions with the acquisition of Bosphorus Gas. On the other hand, SOCAR (Azerbaijan) has increased its presence in Turkey following the signature in December 2011 of the Memorandum of Understanding for the construction and operation of the abovementioned *Trans-Anatolian Pipeline*.

Table 4.5-1. Recent mergers, acquisitions and other operations by foreign investors in the utilities, gas and oil sector in Turkey.

Date announced	Company	Stakes %	Acquirer	Investor nation	Sector
15-Mar-08	Baskentgaz	90%	Global - Energaz - ABN Amro	Turkey - Netherlands	Utilities
23-Apr-08	Kayserigaz	40%	EWE AG	Germany	Utilities
1-Jul-08	Baskent Elektrik Dagitim	100%	Sabancı - Verbund - EnerjiSA	Turkey - Austria	Utilities
1-Jul-08	Sakarya Elektrik Dagitim	100%	AkCEZ	Turkey - Czech R.	Utilities
11-Jul-08	Bares Elektrik Uretim	100%	Italgas SpA	Italy	Utilities
28-Jul-08	Akpet	100%	Lukoil	Russia	Oil and gas
30-Jul-08	Tasyapi Enerji Grubu	50%	Cogentrix Energy	USA	Utilities
15-Aug-08	Izgaz	90%	GdF Suez	France	Utilities
28-Sep-08	Borasco	60%	OMV	Austria	Utilities
8-Oct-08	Ak Enerji Üretim	37%	CEZ	Czech Republic	Utilities
23-Oct-08	Kayserigaz	40%	EWE AG	Germany	Utilities
23-Oct-08	Bursagaz	40%	EWE AG	Germany	Utilities
9-Dec-08	Polat Enerji	50%	EdF Novelles	France	Utilities
4-Mar-09	Borusan Enerji	50%	EnBW	Germany	Utilities
9-Mar-09	Palmet Enerji	13%	Manitoba Hydro Int.	Canada	Utilities
19-Mar-09	Yesil Enerji	95%	Statkraft	Norway	Utilities
23-Mar-09	E.ON Turcas Kuzey Elektrik	70%	RWE	Germany	Utilities
23-Mar-09	E.ON Turcas Güney Elektrik	70%	RWE	Germany	Utilities
13-Apr-09	Enerco Enerji	40%	OMV	Austria	Utilities
11-Jun-09	EWE Dogalgaz	100%	EWE	Germany	Utilities
17-Jun-09	Borasco Elektrik	15%	OMV	Austria	Utilities
20-Aug-09	Bosphorus Gaz	31%	Gazprom	Russia	Utilities
1-Oct-09	Toreador Turkey	100%	Tiway Oil	Norway	Oil and gas
12-Oct-09	Power Station	100%	RES	UK	Utilities
24-Mar-10	Six local hydro projects	75%	Reservoir Capital	Canada	Utilities
30-Apr-10	Five local hydro projects	100%	Energo-Pro	Czech Republic	Utilities
5-May-10	Amity Oil and Zorlu Petro-gas	100%	TransAtlantic	USA	Oil and gas
3-Jun-10	Anel Enerji	5%	Ralos New Energies	Germany	Utilities
2-Aug-10	Aves - S-OIL JV	75%	NuStar	USA	Oil and gas
23-Oct-10	Petrol Ofisi	54%	OMV	Austria	Oil and gas

continues in the next page →

→

1-Dec-10	Entek Elektrik	50%	AES	USA	Utilities
10-Feb-11	Thrace Basin Natural Gas	100%	TansAtlantic (35%), Valeura Energy (40%), Pinnacle (25%)	USA, Bahamas, Canada	Oil and gas
21-Apr-11	Arar Petrol and Gas	5%	Niche	UK	Oil and gas
24-Jul-11	Yeni Elektrik Uretim	40%	Ansaldo Energia	Italy	Utilities
28-Oct-11	Aksa Enerji	15%	Goldman Sachs	USA	Utilities
23-Dec-11	Enda Enerji	100%	Hot Rock	Germany	Utilities
28-Dec-11	SOCAR & Turcas Enerji	25%	SOCAR	Azerbaijan	Oil and gas
12-Mar-12	Avrasya Gaz	60%	Prima Energy Trading	Russia	Oil and gas
9-May-12	Petkim	10%	SOCAR	Azerbaijan	Oil and gas
29-Jun-12	AkCez	23%	CEZ	Czech Re- public	Utilities
17-Jul-12	Trakya Elektrik Üretim	90%	Inter RAO	Russia	Utilities
10-Sep-12	Karasular Enerji	40%	Aquila Hydropower- INVEST	Germany	Utilities
27-Nov-12	Petgaz & wholesale LPG	100%	Rus Oteko	Russia	Oil and gas
4-Dec-12	EnerjiSA	50%	E.ON AG	Germany	Utilities
12-Dec-12	Petrol Ofisi Petrol Arama	100%	Tiway Oil	Norway	Oil and gas
12-Feb-13	Aksa Enerji	3%	Goldman Sachs	USA	Utilities
14-Mar-13	Karasular Enerji Uretimi	60%	Aquila Capital Was- serkraft	Germany	Utilities
12-Jun-13	Benal Danismanlik	100%	Aswar National	Kuwait	Utilities
16-Aug-13	Bagistas II Hydro Plant	100%	Globtec	Germany	Utilities
25-Sep-13	Alpay Enerji	75%	San Leon Energy	U.K.	Utilities
18-Dec-13	Global enerji Elektrik Uretim	15%	Emkaan In+D2:D53vest- ment	U.A.E.	Utilities

Sources: Pricewaterhousecoopers. Turkey Energy Deals (2008-2014).

Pricewaterhousecoopers (2009) referred to some of these interesting deals in this fashion:

<<[...] the deal wheels in the natural gas sector were lubricated by interest from foreign utility companies in the midstream zone. Gazprom increased its shares in Bosphorus Gaz, a Turkish company holding a licence to import 750mcm of gas per year from Gazprom itself. Another private natural gas importer, Enerco, licensed to import 2.5bcm of gas per year also from Gazprom, got to be a deal subject and sold its 40% share to

OMV. In this way, the Austrian company added gas import to its existing operations in fuel retail and power generation markets in Turkey [...]>>

Strategic movements in electricity, natural gas and oil distribution has been facilitated by liberalization in these sectors. Privatization effectively started around year 2000, and has been accelerated in the past five years in what regards electricity supply and gas distribution; however, upstream industries are not fully opened to international competition yet.

The ongoing liberalization and full privatization of the monopoly held by BOTAS, the Turkish Pipeline Corporation (Erdogdu, 2007:14; EPDK, 2007:15), is probably one of the events most anticipated by foreign investors. Turkish legislation obligates BOTAS to sell distribution branches, as well as to separate commercialization and transportation activities. These measures are considered by the experts as very favorable to the creation of competition within Turkish energy sector (Mazzanti and Biancardi, 2005).

However, it seems that cooling down EU accession prospects and recent economic and political instability have resulted in a recent decline on foreign involvement in energy merges and acquisitions in Turkey, from 42% participation in total deals in 2011 to 25% in 2012 and 1% in 2013 (Pricewaterhousecoopers, 2008-2014). Local companies are nowadays dominating energy deals and privatization-related acquisitions. In addition, European companies such as RWE and OMV have not been active in the acquisition market for a while, as the prospects for the completion of Nabucco have almost vanished.

Overall, this brief geopolitic and geoeconomic analysis shows how laws (legislative level), international relations (state level) and FDI decisions (firm/private level) are intimately related. The energy sector in Turkey has been experiencing privatization and liberalization processes at its different sectors (electricity, natural gas, oil, renewable sources...) and levels (generation, distribution, commercialization, etc.). These reforms are partly motivated by

Turkey's accession negotiations with the European Union, who is at the same time interested in counting a safe energy corridor through Anatolia. Therefore, we argue that the evolution of relations with the EU will affect decisions taken by foreign investors in the energy sector in Turkey. Worsening EU membership prospects may delay domestic reforms and difficult the way to European multinationals trying to participate in the Turkish energy market in the future.

4.6. Conclusion

The Turkish economy has been characterized by suffering from difficulties to attract foreign direct investment. Net FDI inflows averaged 2.7 % of the Turkish GDP in 2005-2008, and 1.2% of GDP in 2009-2013, compared to less than 0.5% of GDP in 1990-2004. According to the literature, macroeconomic and political instability were probably discouraging foreign investors, as sudden stops will frequent in the nineties in a context of capital account liberalization.

How can the boost in FDI inflows observed in 2005 be explained? A recent and increasingly predominant strand of studies argue that, apart from improved economic and political stability achieved under the AK Party, the beginning of accession negotiations with the EU in 2005 has significantly contributed to boost FDI. Most of the existing literature tries to “capture” this “EU accession” effect using a dummy variable in cross country regression or gravity models. This paper, in turn, complements existing empirical evidence by opening this “black box” and trying to understand which factors and which concrete policy actions explain the recent increase in FDI.

Following a qualitative discussion framework to assess the potential implications of free trade agreements on FDI (Blomstrom and Kokko, 1997), we argue that the Customs Union Treaty for industrial products, signed between Turkey and the EU in 1996, did not entail a significant increase in

FDI inflows because it did not imply strong environmental and policy changes for investors, and there was a five-year margin for implementation. In turn, the official start of EU accession negotiations in 2005 encompassed a wide set of reforms in a number of chapters of the *acquis communautaire* that were directly or indirectly affecting business climate.

In addition, we argue that both developments in accession talks and foreign policy decisions assumed by Turkey will dynamically shape the impact of EU integration on FDI attraction: the same way the beginning of accession negotiations with the EU functioned as a market signal that helped to achieve yearly FDI to GDP inflows six time higher in 2005-2008 than in previous year (Sayek, 2007), the global economic slowdown starting in 2009 and increasing *Euro-skepticism* may mitigate this “EU effect” in the following years. In fact, in the past five years we have already seen a contraction of FDI inflows, and only growing foreign investment in the energy sector has prevented a collapse.

The marked increase in foreign presence in the Turkish electricity, gas and oil sectors can be explained by reforms aimed at liberalization, an accelerated privatization process, and the relevance of Turkey for the energy security strategy of the European Union, as well as its geostrategic importance for energy suppliers such as Russia and Azerbaijan. The agreement between Azerbaijan and Turkey (June 2013) to transport gas from the Shah Deniz field to Europe through a *Trans Adriatic Pipeline* sidelines *Nabucco*, a project that has been at the center of the EU energy corridors strategy. This is likely to result in diminishing presence of European investment in eventual FDI inflows to the energy sector in Turkey.

In sum, qualitative analysis of the Turkish case shows how, beyond macroeconomic and political stability, state-level decisions such as regional integration processes and the choice of allies from a foreign policy / geopolitical perspective are likely to have an impact on actions taken by foreign investors. This has a series of policy implications.

First, a delayed EU accession or the possibility of being marginalized in an eventual EU-US Transatlantic Trade and Invest Partnership (Chislett, 2013) are likely to deter European FDI to Turkey in the future. Thus, Turkish policy makers could continue working on the enhancement of the relationship with other neighboring countries, and the pursuit of other regional integration initiatives should not be ruled out. Here, the Organization of the Black Sea Economic Cooperation (Cornell and Jonsson, 2006), different Middle East and Central Asia countries, Russia and Iran may be considered as potential partners. Working in alternative regional initiatives, Turkey would be able to reduce the dependency on EU investments, continue enhancing its role as regional actor, and improve its bargain power with traditional allies (Onder, 2007).

Second, from the point of view of the foreign investor, it can be argued that Turkey will remain relatively attractive as a country to establish subsidiaries. Turkey counts both with a large and quickly growing internal market (for horizontal FDI) and the possibility of serving as an export platform to serve manufacturing products to the EU (vertical FDI), thanks to the Customs Union agreement. Even if progress in some areas of the *acquis communautaire* is slow (free movement of goods, right of establishment and freedom to provide services...), the continuation of EU accession talks is a guarantee of progressive improvement in the business framework. Moreover, the ongoing privatization of utilities and energy transmission in Turkey should appeal the foreign investor; even if the massive *Nabucco* pipeline is not finally built, Turkey continues to be at the center of important international oil and gas corridors, and has a stake in new projects aimed at transporting gas to Europe: the *Trans Adriatic Pipeline* and the *South Stream*.

Finally, an implication for both policy makers and researchers around the world is that, apart from macroeconomic, political and institutional stability, regional integration matters for foreign direct investment attraction. But not any regional integration initiative may be sufficient to appeal to the foreign

investor. In line with Blomstrom and Kokko (1997), we find some evidence that the deeper the environmental change the agreement encompasses, the more powerful it will be in enhancing FDI inflows. Most Accession Partnership Agreements signed by the EU and candidate countries seem to have boosted FDI, whereas it has not always been the case in simpler Free Trade Agreements or Customs Unions.

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4.8. Appendix D. Literature review

Table 4.8-1. Literature review summary. Studies on foreign direct investment in Turkey.

Authors	Year	Topic	Methodology	Theoretical Approach/ Determinants	Focus	Conclusions - relevant results for our study
Tatoglu and Glaister	1998	Drivers of FDI in Turkey - Locational Specific Factors	Micro - Survey (factor analysis)	Location, Ownership and internalization (OLI)	Determinants	Low cost inputs and geographical proximity are more important for European investors than for the USA/UK multinationals. Following Turkey's accession to the Customs Union with the EU in January 1996 the number of FEV formations with firms from EU countries is expected to increase.
Tatoglu and Glaister	2000	Dimensions of Western Foreign Direct Investment in Turkey	Micro - Survey	Location, Ownership and internalization (OLI)	Determinants	They specify some of the location, transaction and firm related factors that are influential in the establishment of foreign companies in Turkey. Still, they recognise the need to complement with a macroeconomic approach
Tatoglu et al	2003	Determinants of Foreign Ownership in Turkish Manufacturing	Micro - Survey (Logit regression)	(OLI)	Determinants	Country-related factors influence foreign ownership choice (WOE vs JV). Turkey should continue liberalisation.
Deichmann et al	2003	Location - distributional patterns of FDI within Turkey	Quantitative (Logit regression)	Location specific factors + Policy	Determinants	Location decision depends on the industry (productivity, agglomeration) and on regional conditions (coastal access, infrastructures, etc.). Public investment's share on regional GDP does not seem to be an influencing factor.
Lenger and Taymaz	2007	FDI and spillovers in Turkish Manufacturing	Micro - Survey	(OLI)	Consequences of FDI	Foreign owned firms are on average more innovative than domestic ones. They also find that the main channel of spillovers is labour's acquired knowledge.

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Authors	Year	Topic	Methodology	Theoretical Approach/ Determinants	Focus	Conclusions - relevant results for our study
Erdilek	2003	Comparative study of inward and outward FDI flows in Turkey	Political economy analysis + Survey	Macro-economic determinants + Policy	Performance	The author blames internal factors such as economic instability and lack of willingness among politicians to attract FDI as the cause of Turkey's dismal performance in attracting FDI.
Tulug	2004	Drivers of FDI in Turkey	Micro - Survey	Macro de-term. + Policy	Performance	The results indicate that economic and political instability is the main deterrent to FDI.
Uctum and Uctum	2005	Portfolio Flows, Foreign Direct Investment, Crises	Quantitative (model)	Macroeconomic	Other (structural breaks)	FPI is vulnerable to regional contagion (Russian crisis) and responds negatively to financial risk, while FDI is sensitive to economic risk but is not affected by contagion. They detect structural breaks for Turkey in 1998 and 2000.
Basar and Tosunoglu	2006	Turkish problems to attract FDI	Quantitative (multi-variable)	Macroeconomic	Performance	Turkey seems to be attracting less FDI than expected, probably a result of high inflation rates and macro instability.
Dumludag et al	2007	Determinants of Foreign Direct Investment from an institutional perspective	Quantitative (cross country) and questionnaire	Macroeconomic determinants + Policy (institutional)	Determinants	Institutional improvement is needed in order to increase inward FDI. In Turkey political and macroeconomic instability (related to a lack of strong institutions) are seen as the most significant facts that hinder higher inflow of FDI.
Onaran	2009	Changes in the wage share in the manufacturing in Mexico, Turkey and Korea	Quantitative (3 countries)	Other	Consequences of FDI	FDI inflows have not brought the expected improvement on worker's real wages.
Cetin and Taban	2009	impact of FDI on trade with the EU	Quantitative (multivariable)	Other	Consequences of FDI	FDI contributes positively to foreign trade. Japanese and EU FDI are export-oriented and thus contribute to the rapid growth of Turkish exports, while US FDI is anti-export-oriented and thus leads to decreases in Turkish exports.

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Authors	Year	Topic	Methodology	Theoretical Approach/ Determinants	Focus	Conclusions - relevant results for our study
Bilgili et al	2012	Non linear determinants of FDI in Turkey	Quantitative (single country, Markov)	Macroeconomic and institutional	Determinants	FDI is positively correlated with economic growth in Turkey, decreasing country risk and expansion in exports, whereas labor costs, imports and currency depreciation expectations have a negative impact on FDI in Turkey. The relationship of energy costs with FDI shows a significant non-linearity.
Loewendahl, H. B. and E. Er-tugal-Loewendahl	2000	EU's enlargement and Turkey's position in attracting FDI	Political economy analysis + Micro Survey	Mixed macroeconomic + Location + Policy	Performance/Regional	Late accession to the EU will cause that Turkey continues to fall behind Central and Eastern Europe countries. Policy options: privatize, improve human capital, infrastructures, telecom and develop an active FDI attraction agency.
Dutz et al	2005	Turkey's Foreign Direct Investment Challenges: Competition, Rule of Law and the EU Accession	Political economy analysis (+3 case studies)	Macroeconomic determinants + Policy	Performance/Regional	Lags behind in its energy infrastructure, its level of computerization, and the availability of credit for the private sector. EU accession process should provide Turkey with significant FDI inflows helping to ease rule of law and competition constraints.
Zaman	2005	Impact of accession negotiations on FDI and trade	Political economy analysis	Not clear	Consequences of FDI	Predicts boost in FDI inflows in the aftermath of accession negotiations. Caveat: subjective analysis.
Sayek	2007	Determinants of FDI in Turkey, and the impact of EU accession	Quantitative (cross country)	Location specific factors + Macroeconomic	Determinants	The author attributes the recent increase in FDI inflows mainly to integration prospects. The reduction in inflation does not seem to have played a major role in this late success.

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Authors	Year	Topic	Methodology	Theoretical Approach/ Determinants	Focus	Conclusions - relevant results for our study
Gungor and Binatli	2010	Determinants of FDI in Easter Europe and Turkey, and the impact of EU accession	Quantitative (cross country)	Macroeconomic	Determinants	Analyze a panel data consisting of eleven countries involved in EU accession, including Turkey, and conclude that progress in this process result in a significant increase of FDI inflows.
Uckun and Doerr	2010	Turkish reforms post 2001	Political economy analysis	Macroeconomic + policy	Other (reforms)	Both reforms in the investment framework and availability of global financial funds during 2003-2008 facilitated FDI upsurge.
Esiyok	2011	Determinants of FDI in Turkey, a capital-knowledge approach	Quantitative (cross country)	Macroeconomic + Policy	Determinants	Esiyok (2011) finds that FDI in Turkey is mainly horizontal. FDI flows to Turkey respond positively to the EU accession process, as well as to bilateral trade treaties with third countries.
Bosco	2012	FDI in Turkey, unexploited potential	Quantitative (cross country, gravity model)	GDP, distance, EU	Determinants	GDP per capita and distance, but not human capital availability, are significant determinants of FDI. Turkey has an unexploited potential in terms of FDI stock of 200% to 1000%.

Source: Author's elaboration

CHAPTER #05

RESUMEN Y CONCLUSIONES

5.1. Motivación del análisis y objetivos de la investigación

La mayoría de los países en desarrollo adoptaron la liberalización económica y abrieron su cuenta de capital a los flujos internacionales durante los años noventa, ya que se suponía esto conllevaría una mayor atracción de fondos e inversiones, así como un mayor desarrollo de sus mercados financieros. Sin embargo, las economías desarrolladas continuaron atrayendo aproximadamente las tres cuartas partes de la inversión extranjera directa (IED) a nivel mundial entre 1990-2008 . Sólo tras la crisis económica y financiera de 2008-2009 los países en desarrollo han sido capaces de incrementar su participación en los

SUMMARY AND CONCLUSIONS

5.1. Motivation for the analysis and research objectives

Most developing countries embraced liberalization and opened their capital account during the nineties, as that was alleged to help them attracting international capital flows and deepening their financial markets. However, high income economies continued attracting approximately three quarters of foreign direct investment (FDI) flows in 1990-2008. Only after the global economic slowdown of 2008-2009 developing countries were able to noticeable increase their share in global capital flows, although most of it has been concentrated in large emerging economies (China, India, Brazil...), whereas lower income

flujos globales de capital, si bien la mayor parte de ellos se han concentrado en grandes economías emergentes (China, India, Brasil, etc.), mientras que las economías de bajo ingreso continúan teniendo problemas para atraer al inversor extranjero.

El objetivo de esta tesis doctoral es ayudar a identificar los factores que determinan los flujos de inversión extranjera directa a naciones en desarrollo, así como llegar a entender mejor bajo qué condiciones dichos flujos pueden ser maximizados y qué políticas públicas pueden ser útiles a este respecto. La idea es, además de contribuir a la literatura sobre los factores determinantes de la IED, tratar de informar también las decisiones de empresarios y de políticas públicas relacionadas.

Los artículos incluidos en esta memoria de tesis tratan de responder a cuatro grupos de preguntas de investigación:

economies continue struggling.

It is the main aim of this thesis to help identifying the determinants of FDI flows to developing nations, as well as understanding which are the conditions under which these flows can be maximized, and which public policies are more influential in this sense. The idea is not only to contribute to existing literature on the determinants of FDI, but also to inform public policy making and international entrepreneurs.

The papers included in this thesis try to answer four main sets of research questions:

1. To what extent has better macroeconomic management helped certain countries attract more FDI? This is one of the reasons why we focus on Latin American countries and Turkey, as most of them opened their capital account to foreign flows during the late eighties or early nineties and suffered marked

1. ¿Hasta qué punto ha ayudado la mejor gestión de macroeconómica a que algunos países atraigan más IED? Decidimos centrarnos en el caso de Turquía y también en el de países latinoamericanos, ya que la mayoría de ellos abrieron su cuenta de capital a los flujos internacionales a finales de los años ochenta o principios de los noventa, y sufrieron una mayor volatilidad macroeconómica que resultó en que la IED no aumentó tanto como cabría esperar. Durante la última década, a medida que la gestión macroeconómica mejoró en estos países, parece que, en general, se volvieron más atractivos para los inversores internacionales. En los capítulos 2 y 4 de esta memoria de tesis tratamos de identificar qué factores macroeconómicos (tasa de crecimiento, inflación, resultado de cuenta corriente, niveles de deuda, etc.) influyen de manera significativa los flujos de IED en nuestros países de estudio.

2. ¿Cuál ha sido el rol de instituciones mejores y más transparentes a la hora de incrementar la atracción de IED? Las instituciones económicas en

economic instability that resulted in countries not experiencing significant increases in FDI inflows. Over the past decade, as macroeconomic management in these countries improved, it seems that, in general, they became more attractive to the foreign investor. In Chapters 2 and 4 we try to identify which macroeconomic factors (growth rates, inflation, current account balance, debt levels...) are significant determinants of FDI in our countries of study.

2. What has been the role of improved and more transparent institutions in enhancing FDI attraction? Economic institutions in Latin America have been quickly mutating and, even when an overall noticeable improvement has been observed over the past two decades, still nowadays the rules of the game widely differ across countries in the region. We want to assess in this thesis to which extent institutions matter for FDI attraction, and which are the most influential dimensions, for policy makers to take them into account (rule of law, accountability and transparency, investor protection, etc.). We discuss

Latinoamérica han mutado rápidamente. En general, se observa una mejora notable en la capacidad institucional a lo largo de las dos últimas décadas, si bien es cierto que aún hoy en día las “reglas del juego” difieren notablemente de unos países a otros. En esta tesis tratamos de valorar hasta qué punto las instituciones influyen la atracción de IED, y cuáles serían las dimensiones más relevantes a tener en cuenta (estado de derecho, transparencia y rendición de cuentas, protección al inversor, etc.). Discutimos aspectos institucionales en los capítulos 2, 3 y 4 de esta tesis.

3. ¿Cuáles son los elementos a considerar a la hora de decidir el grado de participación extranjera en una filial? El capítulo 3 se centra en la decisión de entrada en Latino América y el Caribe por parte de compañía multinacionales e inversores extranjeros. Este tema está íntimamente relacionado con los factores determinantes de la IED, si bien en este caso se trata de decidir entre entrar de la mano de un socio local (joint venture, JV) o de retener una participación

institutional issues in chapter 2, 3 and 4 of this thesis.

3. What are the factors influencing the degree of foreign ownership in FDI subsidiaries? Chapter 3 in this thesis focuses in understanding the determinants of foreign market entry mode in Latin America and the Caribbean. Although this is intimately related to FDI determinants, the focus here is the choice between wholly owned enterprises (WOE) or joint ventures (JV) when investing in a country. Within FDI, opting for a joint venture is expected to help mitigating certain risks (given the presence of a local partner with experience in the host economy and lower initial investment), but may have associated lower returns (as potential profits are shared). On the other hand, whole ownership is usually a higher return, higher risk alternative. At the same time, those companies that have a comparative advantage in the form of unique production processes or a differentiated technology (respect to competitors) would in principle be less prone to establishing joint ventures (to

en la filial cercana al 100% (wholly owned enterprise o WOE, por sus siglas en inglés). Optar por una JV puede ayudar a mitigar ciertos riesgos, dada la presencia de un socio local con experiencia en la economía de destino de la inversión y el menor nivel de inversión inicial; al mismo tiempo, esto a menudo implica menor potencial de beneficios (que tienen que ser compartidos). Por otra parte, optar por WOE generalmente implica mayor potencial de beneficios (y riesgos). También hay que tener en cuenta que aquellas empresas que gozan de una ventaja comparativa en forma de procesos de producción o tecnologías diferenciadas respecto a los competidores en principio se inclinarían menos por la joint venture por el riesgo de imitación o replicación de la tecnología, especialmente en aquellos países con un menor nivel de estado de derecho y el cumplimiento de la ley. Por tanto, aquí tenemos en cuenta factores de riesgo país (incluyendo la estabilidad macroeconómica), la naturaleza de las instituciones, y también las características y estrategia de la multinacional

avoid potential imitation or reverse engineering), especially in those countries where there is weaker enforcement of property rights. Thus, country risk factors (including macroeconomic stability) and the nature of institutions are also taken into consideration here; in addition, the distinguishing features and the strategy of the multinational company have also a bearing on this decision.

4. Do regional trade agreements help increasing FDI flows to member countries? A final question is whether regional integration processes may help countries increasing their appeal to the foreign investor, both from other member countries or from third countries. As we discuss in the next section, according to the literature, FDI inflows to the region are expected to increase, although the distribution across member countries may be uneven. In addition, not every kind of regional integration agreement, ranging from a free trade agreement to a common market, are expected to have the same influence.

inversora.

4. ¿Ayudan los acuerdos de integración regional a incrementar los flujos de IED a los estados miembros? Una última cuestión es si los procesos de integración regional pueden servir de catalizador de la IED, procedente tanto de estados miembros como de terceros países. Tal y como discutimos en la sección siguiente, de acuerdo a la literatura, se espera que aumenten los flujos de IED a la región en la que se firma el tratado de libre comercio o de asociación, si bien la distribución de éstos entre los diferentes estados miembros puede ser desigual. Además, puede que no todos los tipos de acuerdo de integración regional (desde acuerdo de libre comercio hasta mercado común) tengan la misma influencia.

En definitiva, a lo largo de los diferentes capítulos de esta tesis tratamos consistentemente de responder a cuatro grupos de preguntas de investigación.

In sum, along the different chapters of this thesis we try to consistently address four different sets of research questions. At the same time, all of them are related to the common objective of identifying the determinants of foreign direct investment in developing countries. In order to respond to these research questions, we initially draw from a literature review, select and apply an appropriate study framework and methodology, and try to draw a series of policy implications from the results.

5.2. Identifying the determinants of foreign direct investment through the literature

The departure point for the different chapters of these thesis is always a comprehensive literature review on the research question. Through the

Todas ellas están interrelacionadas y tienen el objetivo en común de identificar los factores determinantes de la inversión extranjera directa en países en desarrollo. En todos los casos, partimos para nuestro análisis de una revisión de la literatura que después nos permite la selección y aplicación de un marco de estudio y una metodología adecuados; por último, tratamos de destilar de los resultados y de la evidencia encontrada una serie de implicaciones para la toma de decisiones.

5.2. Identificación de los factores determinantes de la inversión extranjera directa a través de la literatura

El punto de partida de los diferentes capítulos de esta tesis es siempre un análisis de la literatura existente relativa a esas preguntas de investigación.

different literature reviews we have performed for the papers on determinants of FDI in Latin America (macro-country level analysis), determinants of foreign ownership in Latin America (enterprise level), and factors influencing FDI in Turkey (case study), we have identified a series of theoretical approaches that are intimately related. Overall, it can be argued that there are six main sets of factors influencing foreign investment:

First, initially, it was argued that the decision to invest in foreign markets was mainly taken following an assessment of transaction costs. If the costs of operating through markets (transport, customs, arranging commercial contracts) are low, exporting would be the preferred option to serve demand at destination. This may also be the first choice for high risk or unknown foreign markets, as the company bears less sunk costs by exporting instead of investing. On the other hand, if contractual risks are high, investment modes would be preferred over exporting or licensing, as the company can save

Partiendo de las diferentes revisiones de la literatura que hemos llevado a cabo para los artículos sobre los factores determinantes de la IED en Latinoamérica (a nivel macro-país), los factores determinantes de la participación extranjera en filiales en Latinoamérica (nivel de empresa), y los factores influyendo la IED en Turquía (caso de estudio), hemos identificado seis enfoques teóricos íntimamente relacionados. Cabría afirmar que estos seis enfoques se refieren a seis grandes grupos de factores que influyen la inversión extranjera directa:

Primero, en un principio se sostenía que las decisiones de inversión en mercados extranjeros se tomaban fundamentalmente de acuerdo a un análisis de los costes de transacción. Si los costes de transacción a través de los mercados (transporte, aduanas, preparación de contratos comerciales) son bajos, exportar será la opción preferida para atender la demanda en el país de destino. Esta también puede ser la primera opción en mercados desconocidos o con un alto riesgo percibido, ya que la compañía o inversor internacional

transaction costs and minimize the risk of imitation or suffering reputational losses by directly locating in the target market (Dunning, 1973; Agarwal and Ramaswami, 1992).

Within FDI, opting for a joint venture is expected to help mitigating certain risks (given the presence of a local partner with experience in the host economy and lower initial investment), but may have associated lower returns (as potential profits are shared). On the other hand, whole ownership is usually a higher return, higher risk alternative.

Second, companies decide on their ultimate location (not only at the country level, but also at the regional or even local level) considering the endowments they want to reach (Dunning, 1998). Access to local demand (market size) is one of the most obvious location-related determinants of FDI. Also, existing managerial capabilities, human capital, access to land,

soporta menos costes hundidos al exportar en lugar de invertir. Por otra parte, si los riesgos contractuales son altos, se preferirá invertir directamente en destino en lugar de exportar o contratar licencias de comercialización, ya que la empresa inversora puede ahorrarse costes de transacción y minimizar el riesgo de sufrir imitación o ver dañada su reputación (por un comercializador inadecuado en destino) mediante la implantación directa (Dunning, 1973; Agarwal y Ramaswami, 1992).

Dentro de la inversión extranjera directa, optar por una joint venture se supone ayudará a mitigar ciertos riesgos asociados al nuevo mercado, dada la presencia de un socio local con experiencia y al menor desembolso inicial; al mismo tiempo, sin embargo, esto puede significar menores tasas de retorno (ya que las ganancias se comparten). Por otra parte, un grado de participación del 100% en la filial generalmente es una alternativa de mayor retorno, pero también de mayor riesgo.

or agglomeration economies are relevant factors to take into consideration. According to Deichmann et al. (2003), in the case of multinationals investing in Turkey, the ultimate location decision depends on the characteristics of the industry (productivity, agglomeration of similar firms) and on local conditions (coastal access, infrastructures, etc.). With regards to the foreign entry market mode choice, the larger the demand and the richer the endowments of the host economy, the more likely is that international investors opt for a higher degree of ownership in the subsidiary.

Thirdly, even if theoretical contributions relating macroeconomic conditions and FDI inflows are scanty, the empirical literature, in general, argues that poor macroeconomic management and instability contributes negatively to foreign direct investment attraction. When we look at Latin America, there is evidence that maintaining large current account deficits is positively related to FDI inflows (Montero, 2008). There is also some

Segundo, las empresas deciden la localización de la filial (no sólo elección de país, sino también a nivel regional o local) considerando los recursos a los que quieren acceder (Dunning, 1998). El acceso a la demanda local (tamaño de mercado) es uno de los factores más obvios detrás de cada decisión de localización. También, las habilidades de gestión de los managers, el capital humano, el acceso a tierra, o las economías de aglomeración son factores relevantes a tener en cuenta. Según Deichmann et al (2003), en lo que se refiere a multinacionales invirtiendo en Turquía, la decisión de localización depende tanto de las características de la industria o sector (productividad, aglomeración de empresas) como de las condiciones locales (acceso costero, infraestructuras, etc.). En lo que respecta a la elección de la forma de entrada en mercados extranjeros, cuanto mayor es la demanda y más ricos los recursos de la economía de destino, más probable es que los inversores internacionales opten por un mayor nivel de participación en las filiales.

evidence that high inflation and debt service have negative effects on foreign investment (Bengoa and Sanchez-Robles, 2002), although these findings are not always consistent in the literature. In the case of Turkey, there is consensus in the literature, pointing to high inflation and macroeconomic volatility as the principal reason why the country was not able to attract significant FDI inflows during the nineties, in spite of capital account liberalization (Erdilek, 2003; Basar and Tosunoglu, 2006). In sum, macroeconomic stability would be, at least, a necessary (but perhaps not sufficient) condition to attract FDI. It is also worth noticing that exchange rate volatility and institutional uncertainty could result in hysteresis effects, slowing or reducing the response of foreign investors to FDI determinants (Dixit, 1989).

Fourth, we point out in the introductory chapter that this thesis is motivated by the fact that some developing economies are underachieving in FDI attraction, and they are competing among themselves to get more

Tercero, aunque no abundan las teorías que relacionan condiciones macroeconómicas e IED, la literatura empírica, por lo general, sostiene que una pobre gestión macroeconómica contribuye negativamente a la atracción de inversión. En el caso concreto de Latinoamérica, hay evidencia de que mantener grandes déficits por cuenta corriente resulta en un mayor influjo de IED (Montero, 2008). También hay cierta evidencia de que una alta inflación y servicio de la deuda afectan negativamente a la IED (Bengoa y Sánchez-Robles, 2002), si bien ésta no es concluyente. En el caso turco sí que hay consenso en la literatura, que señala a la alta inflación y la volatilidad macroeconómica como las razones principales por las que el país no ha sido capaz de atraer flujos de IED más significativos durante los años noventa, a pesar de la liberalización de los flujos de capital (Erdilek, 2003; Basar y Tosunoglu, 2006). En definitiva, la estabilidad macroeconómica sería, al menos, una condición necesaria (pero quizás no suficiente) de cara a la atracción de IED. También cabe destacar

flows. According to the new institutional economics, institutions matter and countries with good governance are alleged to be more attractive to the foreign investor (Rodrik et al, 2004; Kang and Jiang, 2012). It is argued that foreign entrepreneurs and multinationals prefer countries with stable property rights, an adequate legal framework and the capacity to enforce it, since this will help mitigating investment risks.

In many cases, in this “race to the top” for FDI, countries tweak institutions to increase their appeal to foreign investors: policy makers may alter property rights, grant tax exemptions, use targeted industrial policy, enhance intellectual property right protection (Awokuse and Yin, 2010), try to increase transparency and reduce corruption and informality, or modify the terms of the repatriation of dividends and other aspects of the legal and regulatory framework (see, for example, Busse and Hefeker, 2007). For instance, in our literature review about the determinants of FDI in Turkey we find evidence

que la volatilidad del tipo de cambio y la incertidumbre institucional podría resultar en un efecto de histéresis, que reduciría o ralentizaría la respuesta de los inversores extranjeros a los factores determinantes de la IED (Dixit, 1989).

Cuarto, señalamos en el capítulo 1 que esta tesis está motivada por el hecho de que algunas economías en desarrollo están teniendo problemas para atraer FDI, y tienen que competir entre ellas para conseguir mayores flujos de capital. De acuerdo con los enfoques denominados de Nueva Economía Institucional, hay que tener a las instituciones muy en cuenta; así, los países con mejor gobernabilidad y transparencia serán más atractivos para el inversor extranjero (Rodrik et al., 2004; Kang y Jiang, 2012). Se argumenta que los empresarios extranjeros y las multinacionales prefieren países con derechos de propiedad estables, un adecuado marco legal y capacidad para implementarlos, dado que esto ayudará a mitigar los riesgos asociados a la inversión.

that lack of corruption, transparency, rule of law or security of property rights contribute positively to FDI attraction (Dumludag et al, 2007). At the same time, a “race to the bottom” may be observed, especially among developing countries, since they often offer reductions in taxation, fiscal exemptions, more loose environmental and social safeguards (Hecock and Jepsen, 2013), and lower salaries, in order to be able to attract the foreign investor via lower costs (Olney, 2013).

The literature on the determinants of foreign entry mode (discussed in chapter 3) also argues that institutions matter. In this case, many authors have focused not only in the “usual suspects” of good governance (rule of law, lack of corruption, accountability, etc.), but also in cultural distance. The underlying reasoning is that managers and owners from different countries of origin may approach a similar foreign market entry decision from diverse perspectives (and with dissimilar degrees of risk aversion). The concept of cultural distance

En muchos casos, en esta “carrera de mejora” del clima de inversión, los países modifican sus instituciones, alteran los derechos de propiedad, otorgan exenciones fiscales, incrementan la protección de la propiedad intelectual, y otorgan incentivos a ciertas industrias, siempre con la intención de incrementar la IED (Awokuse and Yin, 2010). Del mismo modo, tratan de incrementar la transparencia institucional, reducir la corrupción y la informalidad, o modificar los términos de la repatriación de dividendos, u otros aspectos del marco regulatorio (Busse y Hefeker, 2007). Por ejemplo, en nuestra revisión de la literatura sobre los factores determinantes de la IED en Turquía encontramos evidencia de que la menor corrupción, la transparencia, el cumplimiento de la ley y la seguridad de los derechos de propiedad contribuyen positivamente a la atracción de IED (Dumludag et al, 2007). Por otro lado, sin embargo, también se observa que hay una “carrera de empeoramiento” en otras dimensiones, como es el caso de minimización de las salvaguardias sociales y medioambientales

relates not only to the legal framework but also to socioeconomic norms, common language and tradition. There is some evidence that the more different the country of origin and the host of FDI are in terms of culture and institutions, the more likely is that the foreign investor opts for a lower degree of ownership in the subsidiary branch, in order to minimize exposure and take advantage of local partner knowledge (Demirbag et al., 2007; Richards and Yang, 2011). Ultimately, multinationals may be reluctant to enter countries in which a high institutional risk is perceived.

In addition, it is also worth bearing in mind ownership and strategic considerations. On top of host country factors (endowments, transaction costs, macroeconomic and institutional), a series of considerations relating to the distinguishing features of the parent firm or the strategy pursued by the multinational company and its management, have an important bearing on direct investment decisions in foreign countries.

(Hecock y Jepsen, 2013), y los menores salarios que algunos países establecen para tratar de incrementar los flujos de IED con menores costes (Olney, 2013).

La literatura sobre los factores determinantes del modo de entrada en mercados extranjeros (capítulo 3) también sostiene que los arreglos institucionales son relevantes en este tipo de decisiones. En este caso, muchos autores se han centrado en analizar los efectos de la distancia cultural (además del imperio de la ley, la falta de corrupción, la rendición de cuentas, etc.). El motivo es que managers y dueños de diferente procedencia pueden afrontar una decisión similar de inversión en mercado de destino desde perspectivas diversas (y con diferentes grados de aversión al riesgo). El concepto de distancia cultural se refiere no sólo al marco legal, sino también a las normas socioeconómicas, a un lenguaje o una tradición común. Se ha demostrado que cuanto más diferentes son los países de origen y de destino de la IED en términos culturales e institucionales, más probable es que el inversor extranjero opte por un menor

For example, ownership advantages refer to the existence of firm-specific assets and knowledge-based assets such as patents, differentiated management formulas, marketing organization and others that provide multi-national companies with advantages over local companies in foreign markets (see the discussion in Meyer et al, 2009). For example, a company with a distinctive brand may not want to license production and distribution under its name in a foreign market, since there are risks that the local partner does not have the capacity to do an optimal marketing mix; in this context, establishing a subsidiary (FDI) in that foreign market would be the preferred option. Similarly, when a multinational is deciding on the mode of foreign entry, it has to consider whether it counts with highly specific knowledge (such as patents) or production processes (and related quality certificates) over which retain ownership; if so, opting for wholly owned subsidiaries would be preferred over joint ventures with local partners (on firm characteristics and FDI, see Davis

nivel de participación en la filial, para así tratar de minimizar su exposición al riesgo y también para tratar de aprovechar el conocimiento del socio local (Demirbag et al., 2007; Richards y Yang, 2011). Por último, las multinacionales pueden ser reticentes a entrar en países en los que se percibe que hay un alto riesgo institucional.

Además, también se deben tener en cuenta consideraciones de propiedad y de estrategia. Además de factores relacionados con el país de destino (acceso a recursos, costes de transacción, macroeconómicos e institucionales), una serie de consideraciones que se refieren a los rasgos distintivos de la empresa matriz y a la estrategia perseguida por la corporación multinacional y su consejo directivo tienen gran relevancia para las decisiones de inversión en países en desarrollo.

Por ejemplo, las ventajas de propiedad se refieren a la existencia de activos

et al., 2000). In the case of Turkey, Tatoglu et al (2003) have studied foreign entry mode at the light of Dunning's (1980) eclectic OLI paradigm, considering ownership, location and internalization factors.

In addition to ownership of strategic assets, it is worth highlighting other strategic decisions that may shape FDI location and foreign entry mode choices. For instance, multinationals have to choose between maintaining a global or a multi-domestic strategy (Dikova and van Witteloostuijn, 2007), and may be affected by the inertia of certain business expansion model that has worked in the past but may not be the best choice in the new market. Gao and Pan (2010) discuss about the role of experience in sequential entries.

Another strategic dimension international managers and multinationals consider when investing in a new country is the role the subsidiary they are establishing is going to have in the business structure of the holding. The

específicos, como es el caso de patentes y de estructuras de gestión, fórmulas de marketing o procesos diferenciados de los de la competencia, que le pueden dar al inversor extranjero una ventaja comparativa (véase la discusión en Meyer et al., 2009). Por ejemplo, una compañía con una marca distintiva puede no querer otorgar licencias de fabricación y distribución bajo su nombre en un mercado extranjero, ya que hay riesgos de que el socio local no tenga capacidad de escoger e implementar un marketing-mix efectivo; en este contexto, el establecimiento de una subsidiaria o filial (IED) en un mercado extranjero es la opción preferida (sobre licencias y exportación directa). De igual modo, cuando una empresa está decidiendo su forma de entrada en mercado extranjero, tiene que considerar si cuenta con conocimiento (patentes) o procesos de producción (y certificados de calidad) altamente específicos, sobre los que debe retener (y no ceder) propiedad; si esto es así, optar por el grado máximo de participación (100%) será preferible a entrar con una joint venture (Davis et al, 2000). En

Knowledge-Capital model (see, for example, Markusen and Maskus, 1999; Davies, 2008) allows for multiple production facilities, separating cross-support centralized services and disperse production in some cases. According to this approach, there would be three main motivations for FDI: addressing the demand in the host country (market seeking or horizontal FDI), using the host country as a production facility to then export a cheaper product to third countries (vertical FDI), and seeking to exploit resources and raw materials (strategic asset seeking FDI). In principle, horizontal FDI is likely to be a substitute for trade, as firms use FDI instead of exports to supply the market, and will probably compete with local industries, whereas vertical FDI is a complement to trade, it is export oriented and it does not normally compete with local industries. The motivations for FDI are likely to influence foreign investment and foreign market entry mode decisions, although they are usually difficult to measure. In chapter three, using enterprise survey data, we focus in

el caso turco, Tatoglu et al (2003) estudian la forma de entrada partiendo del paradigma ecléctico OLI de Dunning (1980), teniendo en cuenta factores de propiedad, localización e internalización.

Además de la propiedad de activos específicos, cabe destacar el peso que otras decisiones estratégicas tienen en las decisiones de inversión y participación en la filial. Por ejemplo, Dikova y van Witteloostuijn (2007) sostienen que las multinacionales tienen que elegir entre mantener una estrategia global o multi-país (diferenciada por economía de destino). Además, puede ser el caso de que se vean afectadas por la inercia derivada de decisiones de internacionalización que adoptaron en el pasado (y que pueden no ser las mejores en nuevos mercados de destino). Gao y Pan (2010) discuten el rol de la experiencia en entradas sucesivas en mercados extranjeros.

Otra dimensión estratégica que los managers y empresas internacionales

analyzing certain (imperfect) proxies for vertical FDI, such as the percentage of indirect exports, as well as the percentage of inputs in the production process that have foreign origin.

Finally, according to some authors, regional integration processes have an impact on FDI. This could arguably be a sixth category of determinants of FDI, although it is intimately related to transaction costs (customs) and location considerations, as well as to the abovementioned Knowledge-Capital model. The impact of integration on intra-regional FDI inflows seems to indeterminate; on the one hand, a negative impact of a regional trade agreement (RTA) on horizontal FDI could be theoretically expected, as reduced tariffs makes “tariff-jumping” horizontal investment less necessary; on the other hand, the RTA may positively influence vertical FDI, since relocation of part of the production chain within the region is easier (lower cost to re-export back). Also strategic asset seeking FDI is expected to expand following regional integration. In what

consideran cuando invierten en un nuevo país es el rol que la empresa filial que están estableciendo va a tener en la estructura de negocios de la corporación. El Modelo Capital-Conocimiento (Markusen y Maskus, 1999; Davies, 2008) considera la existencia de múltiples factorías de producción, dispersas en muchos casos y separadas de los servicios centrales. De acuerdo a este modelo, hay tres motivaciones principales para la inversión extranjera directa: satisfacer la demanda en la economía de destino (IED horizontal, u orientada al mercado), implantar una planta de producción para después exportar un producto más barato a terceros países (IED vertical), o bien tratar de explotar recursos y materias primas (IED orientada al acceso a recursos estratégicos). En principio, la IED podría usarse para reemplazar al comercio exterior, dado que la empresa utiliza IED en lugar de exportaciones para satisfacer al mercado de destino, compitiendo probablemente con empresas locales; por el contrario, la IED vertical complementa al comercio exterior, está orientada a la exportación

regards extra regional flows, both the tariff-jumping and internalization models predict an increase in investment. Extra-regional FDI is, in general, expected to increase; for instance, countries in Eastern Europe saw an increase on FDI from outside the European Union when they became members. It is also worth noticing that, apart from modifying tariffs and bringing in other trade-related measures, RTA's often encompass also investment provisions, intellectual property clauses, rules of origin, etc. (Blomstrom and Kokko, 1997; Te Velde and Bezemer, 2006; Medvedev, 2012). For these reasons, regional integration processes are likely to result in higher investment attraction (to the region) and diversion of flows away from neighboring countries that are not part of the region. In Turkey, the mere signaling created by the official start of EU accession conversations in 2005 is argued to have significantly boosted FDI flows (Sayek, 2007).

Summarizing, we have performed a comprehensive literature review to

y no suele competir con las industrias locales. Se espera que los diferentes objetivos de la IED influyan de distinta manera en las decisiones de inversión y participación en filiales, si bien esto es algo difícil de medir. En el capítulo 3, usando datos de encuesta de empresas, tratamos de aproximar este concepto de IED vertical a través de ciertas variables, como el nivel de exportaciones indirectas y el nivel de insumos que una empresa compra en el extranjero.

Finalmente, de acuerdo a algunos autores, los procesos de integración regional tienen un impacto en la IED. Podría argumentarse que esta sería una sexta categoría de factores determinantes de la IED, si bien estaría íntimamente relacionada con los costos de transacción y los factores de localización, así como con el ya mencionado Modelo Capital-Conocimiento. El impacto de la integración en los flujos de IED intra-regionales parece difícil de determinar; por un lado, cabría esperar que un acuerdo de integración regional reduzca la IED horizontal, dado que reduce la necesidad de implantarse directamente

prepare the papers in this thesis, drawing from many different theories. We argue that it is possible to synthesize the determinants of foreign direct investment in six main sets of factors: transaction costs, location-related, macroeconomic, institutional, ownership and strategic, and those related to regional integration. The boundaries among these sets of determinants are not always clear-cut, as some of the underlying theoretical approaches are complementary. And this is the departure point in this thesis: drawing from existing literature, we have defined the universe of theoretically influential FDI determinants, and we focus on testing their significance in the Latin American context through cross country regressions, and in the Turkish context through a case study.

5.3. The selection of research methods

en destino para evitar aranceles; por otra parte, el acuerdo de integración regional puede tener una influencia muy positiva en la IED vertical, dado que la deslocalización de parte de la cadena de producción se hace más fácil (hay menores costos para re-exportar dentro del área integrada). También se espera que la IED que busca obtener acceso a recursos estratégicos se incremente. En lo que se refiere a flujos de IED procedentes de terceros países fuera de la región, se espera que aumenten; por ejemplo, los países de Europa del Este vieron incrementarse notablemente la IED procedente de terceros países fuera de la Unión Europea cuando se convirtieron en miembros de pleno derecho de la misma. También hay que tener en cuenta que, además de conllevar una reducción de tarifas y mejoras en las preferencias comerciales, los acuerdos de integración regional a menudo conllevan también cláusulas de inversión, derechos de propiedad intelectual, reglas de origen, etc. (Blomstrom y Kokko, 1997; Te Velde y Bezemer, 2006; Medvedev, 2012). Por estas razones, los

The strands of literature we have reviewed help us identify a suitable range of research methods to address the different questions. However, since we decided to focus in developing economies, soon we realized that we would be facing certain data constraints. For example, while it is relatively easy to apply a gravity model to understand the difference between current levels and potential FDI flows to OECD countries, a similar analysis cannot be done in Latin America since, to our knowledge, we do not count with a bilateral investment matrix accounting for flows between countries in the region. Thus, we could not rely on the gravity approach and have to opt for a unilateral look (disregarding the country of origin of funds).

It is worth noticing that, in order to avoid the risk of presenting a myopic analysis, we have approached the determinants of foreign direct investment using multiple lenses.

procesos de integración regional suelen resultar en una mayor atracción del inversor extranjero, así como en la desviación de fondos que podrían haber ido destinados a otros países vecinos que no son parte del tratado. En Turquía, las meras expectativas creadas por el inicio oficial de las conversaciones de acceso a la Unión Europea en 2005 parecen haber sido suficientes para incrementar significativamente la IED (Sayek, 2007).

En definitiva, hemos elaborado una exhaustiva revisión de la literatura para preparar cada uno de los artículos contenidos en esta tesis, repasando muy diferentes teorías. Somos de la opinión que es posible sintetizar los determinantes de la inversión extranjera directa en seis grupos de factores principales: costos de transacción, localización, macroeconómicos, institucionales, de propiedad y estratégicos, y aquellos relacionados con la integración regional. Los límites entre estos grupos no siempre están claramente definidos, dado que muchos de los enfoques estudiados son complementarios. Y precisamente este es el punto

First, a cross-country comparison exercise from a macro perspective is adopted in Chapter 2, *Do changes in the rules of the game affect FDI flows in Latin America?* In this case, we build a database with yearly observations for 19 Latin American countries between 1990 and 2010. The source for FDI flows and stock data is coming from United Nations Conference on Trade and Development (UNCTAD), whereas most macroeconomic variables in the dataset come from World Bank World Development Indicators (WDI), and institutional variables are from the International Country Risk Guide (PRS Group). We also create a dummy variable that tries to capture the influence of the DR-CAFTA Agreement between Central American countries and the US on FDI.

With regards to the cross country regression method employed, we present results both under Generalized Least Squares Fixed Effects (once the Hausman test has confirmed this is preferred to Random Effects approach), and Generalized Method of Moments (GMM), as requested by peer reviewers

de partida de esta tesis: a partir de la revisión de la literatura existente hemos definido el universo de factores que teóricamente determinan la IED, para después tratarnos de centrar en probar si son significativos o no; en el caso de Latinoamérica, mediante regresiones econométricas sobre datos multi-país; en el caso de Turquía, a través de un caso de estudio.

5.3. La selección de métodos de investigación

Las corrientes de literatura que hemos revisado nos han ayudado a identificar un rango de métodos adecuado para contestar a las diferentes preguntas de investigación. Sin embargo, al decidir centrarnos en economías en desarrollo, pronto nos dimos cuenta de que nos enfrentaríamos a ciertas limitaciones en cuanto a datos. Por ejemplo, la inexistencia de una matriz que contenga los

during the publication process of this article. Nonetheless, as we discuss in detail in the chapter, there does not seem to be theoretical foundation to use GMM in a model in which we use the stock of FDI as a proxy of the initial level of foreign investment. GMM is justified only if we understand that FDI inflows in a given year depend on the amount of FDI received in the previous year, a case in which we would need to include the lagged FDI flows among explanatory variables; however, unlike GDP growth, for example, FDI flows do not necessarily depend on previous investment levels, and they are usually relatively unpredictable, with volatility caused by the presence or absence of large operations. In the context of the fixed effects model, we first conduct a series of unit root tests and co-integration analysis to control and correct for non-stationary data; then, once we have the first results, we analyze non-linearities, which do not seem to be a problem in our dataset; finally, we introduce a series of robustness checks and test the validity of results for

flujos bilaterales de capital entre los distintos países latinoamericanos nos ha impedido la aplicación de un modelo gravitacional para calcular el potencial de inversión. Es por ello por lo que nos hemos visto obligados a utilizar un enfoque unilateral, que atiende únicamente al destino de los fondos (y no al origen de la inversión).

También cabe notar que, para no correr el riesgo de llevar a cabo un análisis miope, de corto recorrido, hemos abordado los factores determinantes de la inversión extranjera directa con múltiples enfoques.

Primero, en el capítulo 2, con título *¿Afectan los cambios en las reglas del juego a los flujos de IED en Latinoamérica?*, llevamos a cabo un ejercicio de comparación multi-país desde una perspectiva macro. En este caso, construimos una base de datos con observaciones anuales para 19 países latinoamericanos, entre 1990 y 2010. La fuente de datos para flujos y stock de IED es la Conferencia de

different subsamples.

Second, in Chapter 3, *Do foreign multinationals prefer joint or solo ventures in Latin America?*, we adopt a microeconomic perspective using firm level data from the The World Bank Group Enterprise Surveys, for the years 2005-2006 and 2009-2010. Even when our focus is on Latin American and the Caribbean, we contrast also whether observed results are similar to those in another hundred countries. In this case, the preferred regression method is through a binary logit, with the dependent variable taking value 1 for wholly owned enterprises and 0 for joint ventures. A logit model is preferred over a probit, given that the latter is normally used in models where there are clearly marked differences between the two values of the dependent variable; in this case we are making an “ad hoc” division in the continuum of “share of foreign ownership”, since the entry mode motivations of a subsidiary with a 94.5% share of foreign capital (considered JV) and those of a firm with a share of 95.5% (treated as WOE)

Naciones Unidas sobre el Comercio y el Desarrollo (UNCTAD), mientras que la mayoría de las variables macroeconómicas en el set de datos provienen de los Indicadores de Desarrollo Mundiales del Banco Mundial (WDI); las variables institucionales provienen de la Guía Internacional de Riesgo País (Grupo PRS). También creamos una variable instrumental que trata de capturar la influencia en la IED del tratado RD-CAFTA entre países en Centroamérica y Estados Unidos.

En lo que se refiere al método de regresión empleado, presentamos los resultados tanto con Método de Mínimos Cuadrados Generalizados y Efectos Fijos (una vez que el test de Hausman ha confirmado que esto es preferible a usar Efectos Aleatorios), como con el Método de Momentos Generalizados (GMM, por sus siglas en inglés), de acuerdo a la solicitud que nos hicieron los revisores en el proceso de publicación de este artículo. No obstante, tal y como discutimos en detalle en el capítulo, no parece que haya fundación

may not differ that much. It is also worth noticing that we include a series of dummies to see whether the determinants of foreign entry mode differ across sub regions (South America, Central America, Caribbean), or if we look before and in the aftermath of the global crisis of 2008.

Finally, we complement the cross country quantitative approaches with a case study titled *How regional integration and transnational energy networks have boosted FDI in Turkey (and may cease to do so)*. In this case, we draw from the qualitative framework formulated by Blomstrom and Kokko (1997) to try to assess the effects of different Regional Trade Agreements on FDI, depending also on the signing country.

In sum, the works contained in this thesis entail a multi-tier look at FDI that draws from different quantitative and qualitative methods. Results from these approaches have to be regarded as complementary, as we discuss in the next

teórica para usar GMM en un modelo en el que incluimos el stock de IED como aproximación del nivel inicial de IED. GMM sólo se justifica si entendemos que los flujos de IED en un año determinado dependen de la cantidad de IED recibida el año anterior, de modo que tendríamos que incluir el retardo de los flujos de IED entre las variables explicativas; sin embargo, al contrario que en el caso del crecimiento de GDP, por ejemplo, los flujos de IED no necesariamente dependen de los niveles de inversión previos, y suelen ser poco predecibles, con grandes operaciones de adquisición causando a menudo volatilidad. En el contexto del modelo de Efectos Fijos, primero realizamos un análisis de co-integración para identificar y ajustar variables no estacionarias; más adelante, cuando ya tenemos los primeros resultados, analizamos posibles relaciones no lineales, lo que parece no ser un problema en nuestro panel de datos; finalmente, introducimos una serie de test de robustez y comprobamos la validez de los resultados para diferentes sub-muestras.

section.

5.4. Empirical evidence about the determinants of foreign direct investment in developing economies

In order to synthesize the results we obtain in the different chapters, we structure them around the six groups of determinants of FDI we have identified in the literature review, although in slightly different order.

Firstly, a good macroeconomic management seems to be a necessary condition to attract FDI flows, but may not be sufficient. In addition, not all the macroeconomic dimensions are equally relevant, and determinants may vary over time. We find significant evidence that trade openness, low short-term debt levels, and balance of payment deficits are significant in explaining

Segundo, en el capítulo 3, *¿Prefieren las multinacionales extranjeras joint ventures o inversiones en solitario en Latinoamérica?*, adoptamos una perspectiva microeconómica, al emplear datos a nivel de empresa proveniente de las Encuestas de Empresas del Banco Mundial, para los años 2005-2006 y 2009-2010. Si bien nos centramos en Latinoamérica y el Caribe, también contrastamos si los resultados obtenidos son similares a los de otros cien países. En este caso, el método de regresión preferido sigue un modelo logit binomial, en el que la variable dependiente toma valor 1 cuando la participación extranjera en la filial es superior al 95% del capital social, y valor 0 en el caso de joint ventures. El modelo logit es más adecuado que el probit en este caso, dado que el segundo se usa cuando hay una marcada diferenciación entre los dos valores que adopta la dicotómica. En este caso, nosotros estamos haciendo una distinción “ad hoc” en el continuum de los diferentes niveles de participación extranjera, ya que las motivaciones de una filial con una participación

foreign capital flowing to Latin America over the period from 1990 to 2010. The coefficient for current account balance is negative, highly significant and robust among the different specifications; this implies that countries with larger external financing needs seem to appeal to long-term foreign investors, which is in agreement with the existing literature on FDI in Latin America (Montero, 2008; Trevino et al, 2002). At the same time, interest rates and GDP per capita growth levels do not seem to be significant determinant of FDI. The latter result contrasts with the arguments of the theoretical literature, although is in line with the findings of Biglaiser and DeRouen (2006) also for Latin America in 1980-1996. Finally, inflation does not seem to have been a significant determinant of FDI in Latin America in 1990-2010. In Turkey, most authors point to high inflation as a deterrent of FDI, although Sayek (2007) does not find the variable significant. Overall, empirical findings on inflation are inconclusive.

extranjera del 94.5% (considerada joint venture, JV) y las de una con 95.5% (considerada de participación total, o WOE por sus siglas en inglés) pueden no diferir mucho. También cabe destacar que incluimos una serie de variables instrumentales para comprobar si los factores que determinan la forma de entrada en mercados extranjeros (WOE versus JV) difieren entre las diferentes sub-regiones (Sudamérica, Centroamérica, Caribe), o cuando observamos el antes y el después de la crisis del 2008.

Finalmente, complementamos los métodos cuantitativos multi-país con un caso de estudio titulado *Cómo los procesos de integración regional y los corredores energéticos han incrementado la inversión extranjera directa en Turquía (y pueden dejar de hacerlo)*. En esta ocasión, utilizamos el marco de discusión cualitativo formulado por Blomstrom y Kokko (1997) para tratar de evaluar los efectos de los diferentes acuerdos de integración regional en la IED.

Second, there is some evidence that institutions affect foreign direct investment decisions. At the macro level, we find that government stability and its capacity to implement programs and reforms appears here as a highly significant and positive determinant of FDI. Foreign companies are also highly interested in avoiding countries with higher expropriation risks, as reflected by the positive and significant coefficient of the investment profile variable; these findings are in line with those in Staats and Biglaiser (2012), also for Latin America. The law and order variable, accounting for the impartiality of the legal system and the effective enforcement of the law, is barely significant at the 10% level of confidence; foreign entrepreneurs investing in Latin America may take the quality of the legal system in the various countries into account, but this is not the main factor motivating their decision. The quality of bureaucracy and control of corruption have insignificant effects in the different specifications. Corruption is equally insignificant when we look at the microeconomic level.

En resumen, los artículos contenidos en esta tesis analizan a la inversión extranjera directa en países en desarrollo desde una perspectiva a varios niveles, e incluyendo métodos cualitativos y cuantitativos. Los resultados derivados del análisis en diferentes niveles han de entenderse desde una perspectiva de complementariedad, como discutimos en la sección siguiente.

5.4. Evidencia empírica acerca de los factores determinantes de la IED en países en desarrollo

Para sintetizar mejor los resultados obtenidos en los diferentes capítulos, los clasificamos de acuerdo a los seis grupos de determinantes de la IED que hemos identificado en la revisión de la literatura, aunque en un orden ligeramente diferente.

It is worth noticing that, foreign entrepreneurs investing in Latin America take into account different institutional variables that those investing in other parts of the world when assessing the foreign entry mode decision. While in other regions entrepreneurs tend to opt for joint ventures in environments characterized by severe corruption and/or bureaucratic burdens, in LAC those factors do not seem to be significant, and foreign investors pay more attention the percentage of informal payments they have to make. A counterintuitive result is that, contrary to what would be expected, in those countries in which foreign entrepreneurs perceive that the courts are not fair, they opt for establishing Joint Venture in a higher proportion, probably to count with a local partner who may help them dealing with potential legal, idiosyncratic and regulatory barriers. The last finding can be considered to be a proof of the influence of transaction costs and internationalization factors (Dunning, 1973) on foreign direct investment decisions. Transaction costs are intimately related

En primer lugar, una buena situación macroeconómica parece ser condición necesaria pero no suficiente para la atracción de flujos de IED. Además, no todas las variables macroeconómicas son igualmente relevantes, y las que lo son pueden variar a lo largo del tiempo. Encontramos evidencia significativa de que los niveles de apertura comercial, deuda de corto plazo, y déficit por cuenta corriente, son estadísticamente significativos a la hora de explicar los flujos de IED a Latinoamérica entre 1990 y 2010. El coeficiente relacionado con el resultado de cuenta corriente es negativo, altamente significativo y robusto; esto implica que los países con mayores necesidades de financiamiento externo apelan en lo posible al inversor extranjero que está pensando en inversiones de largo plazo; este resultado es coherente con la literatura sobre IED en Latinoamérica (Montero, 2008; Trevino et al, 2002). Al mismo tiempo, los tipos de interés y los niveles de crecimiento del ingreso per cápita no son significativos. Este último hallazgo contrasta con los argumentos de la literatura

to institutions, and the boundaries between both groups of factors are blurry.

We also observe that the so-called location factors do not seem to noticeably influence foreign direct investment decisions in Latin America and the Caribbean. Tariffs (at the macro level) and days to clear customs (micro data) are statistically insignificant variables; this may be caused by the fact that during the past two decades, overall, global tariffs have been declining across the globe, at the same time that customs procedures have been standardized in a number of countries. In what regards the role of human capital on FDI attraction, secondary school completion and scientific articles per capita (macro level), as well as the percentage of skilled labor (micro level) are also found to be insignificant; a potential explanation is that multinationals investing in developing countries, in general, do not often put the emphasis on human capital, but rather on labor costs, with some exceptions (e.g. information technologies in India). In addition, proxies for physical infrastructure such as

teórica, si bien viene a reforzar las conclusiones de Biglaiser y DeRouen (2006) también para Latinoamérica, en 1980-1996. Por último, la inflación no parece haber influido los flujos de IED a Latinoamérica en 1990-2010. En Turquía, sin embargo, la mayoría de los autores señalan la inflación de los años noventa como la principal barrera para la IED, si bien Sayek (2007) no encuentra evidencia empírica. En general, los hallazgos empíricos sobre la inflación no son concluyentes.

En segundo lugar, se demuestra que las instituciones afectan las decisiones de inversión extranjera directa. A un nivel macro, encontramos que la estabilidad gubernamental, y la capacidad del ejecutivo de implementar programas y reformas parece contribuir positivamente (y de manera significativa) a la atracción de IED. Las compañías extranjeras están además altamente interesadas en eludir países con altos riesgos de expropiación, como demuestra el hecho de que la variable perfil de inversión es también significativa; estos hallazgos

the percentage of electricity losses in the country do not seem to play a role on investment decisions either, although the number of mobile phones is found significant in certain regressions (but the effect disappears when institutional variables are inserted in the macro model).

Finally, certain distinguishing features of the foreign firm (ownership and strategic conditions) matter, at least regarding the degree of ownership in the subsidiary. On the one hand, contrary to what could be expected, companies selling products with higher technological content or counting with quality certificates do not seem to take them into account when taking entry mode decisions. Counting with a foreign licensed technology is a very influential determinant in Latin America and the Caribbean, noticeably increasing the probability that the foreign company goes for WOE to enjoy ownership advantages. Interestingly, this result does not hold in the rest of the world. A tentative explanation is that, according to the Index of Economic Freedom,

corroboran los de Staats y Bligaier (2012), también para Latinoamérica. La variable ley y orden, que trata de medir la imparcialidad del sistema legal y la efectividad de la implementación de la ley, es sólo significativa a un nivel de confianza del 10%; parece ser que los empresarios extranjeros que invierten en Latinoamérica tienen en cuenta la calidad del sistema legal en los diferentes países, pero este no es el factor más determinante en su decisión. La calidad de la burocracia y el control de la corrupción parecen no tener efecto sobre la IED, de acuerdo a las diferentes especificaciones econométricas que hacemos. También a nivel micro (encuesta de empresas), la corrupción aparece como un elemento no influyente.

Cabe mencionar que, en lo que se refiere a variables institucionales, los empresarios extranjeros que invierten en Latinoamérica y el Caribe (LAC) parecen tomar en cuenta diferentes factores que aquellos que lo hacen en otras partes del mundo, a la hora de tomar la decisión de entrada. Así, mientras que

Latin America presents the widest intra-regional range of variation in the enforcement of property rights and, thus, in line with Papageorgiadis (2013), foreign entrepreneurs would be taking into account de facto enforcement of property rights to inform their entry mode decision more seriously than in other continents. We also find moderate support for the following contention: the age of the affiliate is negatively correlated with the chance of maintaining a WOE; this finding seems to be in line with Chen and Chang (2011), and contrary to Tatoglu et al (2003), who argued that companies with longer experience prefer a greater degree of control.

In addition, we find strong evidence that the higher the percentage exports represent in total sales, the more probable is that subsidiary takes the form of WOE. This result is related to the knowledge capital model (Markusen and Maskus, 1999), and is in line with the findings of Chen and Chang (2011): market seeking FDI (when most of the sales of the subsidiary are directed to

los gerentes que invierten en otras regiones tienden a optar por joint ventures en entornos caracterizados por corrupción y/o severas cargas burocráticas, en LAC estos factores no parecen ser significativos, y el inversor extranjero pone más atención al porcentaje de pagos informales sobre ventas totales que tiene que hacer para lidiar con regulación. Al contrario de lo que cabría esperar, en aquellos países en los que los empresarios perciben que los tribunales no son justos se opta en mayor proporción por establecer joint ventures, probablemente para contar con un socio local que pueda ayudar a lidiar con potenciales barreras legales, regulatorias e idiosincráticas. Este último hallazgo puede considerarse también una prueba de la influencia de los costes de transacción y los factores de internacionalización (Dunning, 1973) sobre las decisiones de inversión en el exterior. Los costes de transacción se relacionan íntimamente con las instituciones, de modo que delimitar la diferencia entre ambos grupos de factores no siempre es fácil.

the local market) has a higher probability of taking the form of joint venture, as partnering with local companies is probably a good way of accessing relevant distribution channels and targeting certain groups of customers. Moreover, we also find some evidence that companies relying more on domestic inputs than in foreign inputs (for the production) tend to opt for joint venture formulas; the reason for this is that foreign companies take advantage of the experience of the local partners to choose the right domestic supplier.

Lastly, we try to assess whether regional integration influences FDI attraction. In the context of cross-country macro level regression, the DR-CAFTA dummy we create to capture the effects of the trade agreement is found insignificant. However, it may be argued that this may be related to the shortcomings of using this kind of limited “black-box” approach (Te Velde and Bezemer, 2006), as we may be missing some of the indirect effects related to regional integration processes. For example, the qualitative analysis we

También observamos que los llamados factores de localización parecen no influir de manera notable las decisiones de inversión extranjera directa en Latinoamérica y el Caribe. Los aranceles (en nuestro análisis macro) y los días necesarios para despachar en aduana (análisis con datos a nivel de empresa), no aparecen como variables estadísticamente significativas; esto puede ser causado por el hecho de que a lo largo de las dos últimas décadas los aranceles se han venido reduciendo en la gran mayoría de los países, al tiempo que los procedimientos aduaneros se han estandarizado y agilizado. En lo que respecta al rol del capital humano en la atracción de IED, ni los niveles de finalización de estudios de secundaria y el número de artículos científicos per capita (macro), ni el porcentaje de mano de obra cualificada (micro) son variables significativas; una posible explicación es que las multinacionales que invierten en países en desarrollo, por lo general, no suelen poner énfasis en el capital humano, sino más bien en los costes laborales, con algunas excepciones (por

perform in the context of the case study about FDI in Turkey points to the fact that the signalling effect caused by the beginning of accession negotiations to the European Union in 2005 resulted in an upsurge of foreign investment to the Mediterranean country. We have argued that this EU-Turkey Accession Partnership has a much wider scope than the Customs Union Treaty of 1996 (which did not entail free capital movement, among others), and for that reason FDI inflows to Turkey did not significantly increase in the late nineties. On top of that, a look at the energy sector in Turkey seems to suggest that large investments by European companies on gas and electricity may have been partly motivated by EU accession prospects. It is worth acknowledging that the last idea is just based in anecdotal evidence, presenting numerous caveats; nonetheless, should this intuition have to do with reality, this would mean that, as relationships between the EU and Turkey cool down, we are likely to see less investment by European countries in key energy assets and distribution

ejemplo, implantación de empresas de tecnologías de la información en India o Costa Rica). Además, las pérdidas de electricidad, variable a través de la que tratamos de aproximar el impacto de las infraestructuras, no parece jugar un rol relevante en las decisiones de inversión; sólo el número de teléfonos móviles por habitante resulta marginalmente significativo en algunas regresiones (si bien su efecto desaparece cuando se incluyen variables institucionales en el modelo macro).

Por último, ciertos rasgos distintivos de la empresa extranjera (propiedad de activos específicos y condiciones estratégicas) parecen ser relevantes a la hora de decidir sobre el grado de participación en la filial. Al contrario de lo que cabría esperar, las compañías que venden productos de mayor contenido tecnológico o cuentan con certificados de calidad no parecen tener en cuenta estos factores en la elección del modo de entrada en mercado extranjero. En cambio, el hecho de contar licencias para el uso de una tecnología específica es

channels in Turkey, who may need to bring in other players (such as Russia).

Summarizing, developing economies may first need to ensure certain macroeconomic and institutional stability to attract significant foreign direct investment flows. Not all institutions matter: there seems to be a need for government stability and a good legal framework to protect foreign investment (and limit expropriation), whereas the quality of bureaucracy and corruption levels do not seem to be significant determinants of FDI. There is some evidence that rule of law and the fairness of the court system do influence to some extent direct investment decisions. Other country specific factors allegedly affecting the location decision, such as human capital, customs and infrastructure do not seem to be influential of FDI; as a precautionary note, it may be the case that the selected proxies are not capturing or representing the true nature and relevance of these dimensions. Certain firm specific factors, such as counting with a foreign licensed technology, the share of inputs that are acquired in the

un factor extremadamente influyente en Latinoamérica y el Caribe, afectando de manera notable la probabilidad de que la empresa extranjera opte por un mayor grado de control (WOE) sobre su propiedad. Hay que mencionar que, curiosamente, este fenómeno no se observa en otras regiones del mundo. Esto podría obedecer al hecho de que, de acuerdo al Índice de Libertad Económica, Latinoamérica presenta el mayor rango de variación intrarregional en lo que se refiere a implementación de los derechos de propiedad; por tanto, en línea con los argumentos de Papageorgiadis (2013), los empresarios extranjeros podrían estar considerando la dimensión de derechos de propiedad más en serio que en otros continentes, y prefieren no contar con un socio local para evitar un posible plagio tecnológico. Encontramos asimismo cierta evidencia de que el número de años que la empresa filial lleva en operación está negativamente correlacionado con las posibilidades de mantener una WOE; este hallazgo concuerda con los resultados de Chen y Chang (2011), y refuta el argumento

host economy, and the percentage of exports (as a proxy for export platforms) do have a bearing on foreign market entry mode choice (between WOE and JV). Finally, qualitative anecdotal evidence suggests that regional integration processes that encompass noticeable reforms in member countries (beyond tariffs adjustments) result in an increase in foreign direct investment attraction.

5.5. Implications for policy makers and international entrepreneurs

In line with these results, we argue that there are several sets of reforms and policy tools that developing economies may want to use in order to increase their appeal to foreign investors.

- Firstly, they may want to enhance the macroeconomic management

de Tatoglu et al (2003) de que las compañías con mayor experiencia prefieren mayor grado de control sobre la filial.

Además, encontramos también evidencia robusta de que cuanto mayor es el porcentaje que las exportaciones representan en las ventas totales, más probable es que la filial tome la forma de WOE. Este resultado se relaciona con el Modelo Capital-Conocimiento (Markusen y Maskus, 1999), y confirma los hallazgos de Chen y Chang (2011): la IED orientada al mercado (cuando la mayor parte de las ventas de la filial se dirigen al mercado en la que está implantada) tiene mayor probabilidad de tomar forma de joint venture, dado que asociarse con empresas locales es probablemente una buena vía para obtener acceso a canales de distribución relevantes y a ciertos grupos de consumidores. Además, también vemos en los resultados que las empresas que dependen más de insumos domésticos que de insumos extranjeros tienden a adoptar fórmulas de joint venture; la razón es que las empresas extranjeras de este modo aprovechan

by minimizing perceived risk and mitigating volatility. For example, they may want to start by reducing their foreign currency denominated short term debt to reserve levels, as high ratios may be perceived as a signal that the economy may face at some point a sovereign debt crisis. This would probably entail fast currency depreciation, thus lowering the value of investments made by foreign entrepreneurs; for that reason, in a context of high short term debt to reserve levels, the managers of foreign multinationals may delay the investment decision, or could even opt for a different developing economy to establish a subsidiary.

With regards to the balance of payments, the positive relationship between current account deficits and foreign direct investment flows is obvious, but at the same time it may not be sensible to advocate deterioration in the trade balance to call for FDI, as it could ultimately lead to depreciation, inflationary pressures and instability. On the other extreme there are commodity exporters

la experiencia del socio a la hora de elegir los proveedores más adecuados.

Por último, tratamos de evaluar si los procesos de integración regional influyen en las decisiones de IED. En el contexto de nuestro análisis multi-país a nivel macro, la variable instrumental que creamos para capturar los efectos del acuerdo de libre comercio DR-CAFTA no es significativa. No obstante, cabría argumentar que esto puede deberse a las limitaciones de utilizar este tipo de análisis de “caja negra” (TeVelde y Bezemer, 2006), ya que podemos estar obviando algunos de los efectos indirectos relacionados con la integración regional. Por ejemplo, el análisis cualitativo que desarrollamos en el contexto del caso de estudio sobre IED en Turquía apunta a que el efecto de señalización y expectativas causado por el comienzo oficial de las negociaciones de adhesión a la Unión Europea en 2005 resultó en un fuerte incremento de los flujos de inversión al país Mediterráneo. Entendemos que estas negociaciones de adhesión conllevan una serie de reformas mucho más abarcadoras que el anterior Tratado

that generally present trade surplus resulting in currency appreciation, which may discourage foreign investors to a certain extent, given that investing there in a strong currency is likely to be relatively more expensive than in other neighboring economies. Under these circumstances, policymakers may need to try to guarantee credible and transparent monetary objectives, for instance through accurate inflation targeting (if the currency is floating) or through a predictable exchange rate path (if there is intervention or some kind of soft peg to the US dollar). This way they would be, at least, reassuring the foreign investor about the macroeconomic stability of the economy, thus reducing investment risk.

- Second, also related to the need to reduce investment risks, developing states may want to use regulation in certain markets to play an insurance role in the context of switching investment costs (due to exchange rate variability or institutional instability, among other factors). For instance, capital market

de Unión Aduanera de 1996 (que se centró en preferencias comerciales en productos manufactureros, y no trataba en detalle el movimiento del capital), y por esa razón la IED a Turquía no se incrementó de manera significativa en los años noventa. Además, el estudio del sector energético en Turquía parece sugerir que las grandes empresas europeas de gas y electricidad se han visto atraídas por el proceso de negociaciones de adhesión. Hay que reconocer que esta última idea se basa en un análisis cualitativo que presenta ciertas limitaciones; no obstante, si estuviéramos en lo cierto, lo más probable es que, a medida que las perspectivas de ingreso en la UE se enfrían, veamos cada vez menos inversión europea en activos energéticos y canales de distribución en Turquía, que puede que necesite aproximarse a otros actores (como Rusia).

En suma, las economías en desarrollo parecen necesitar en primer lugar asegurar cierta estabilidad macroeconómica e institucional para atraer cantidades significativas de inversión extranjera. En este sentido, no todas las

imperfections in certain Latin American countries may increase the perceived cost of entry for multinationals investing in those countries because the firms may be unable to recur to domestic bond issuances to finance or expand their subsidiary. Additionally, high firing costs or limitations on profit repatriation may be perceived as higher costs that may result in the postponement of entry (investment) and exit (disinvestment) decisions. The first set of issues could be addressed by introducing unemployment subsidies and reducing private compensation payments (as suggested by Pissarides, 2001). In this sense, both institutions (rules) and public sector actors (e.g., regulators, investment attraction agencies) have important roles in addressing market imperfections and reducing uncertainty to prevent hysteresis in entrepreneurial decisions while simultaneously preserving a flexible business environment that appeals to foreign investors. Although non-linearities do not play a significant role in our fixed effects model, further research about the hysteresis of investment

instituciones son igualmente importantes: se necesita contar al menos con un gobierno estable y un buen marco legal para proteger al inversor (por ejemplo, de la expropiación), mientras que, por otra parte, la calidad del funcionariado y los niveles de corrupción no parecen ser factores determinantes de la IED. Hay también cierta evidencia de que el cumplimiento de la ley y la imparcialidad del sistema legal influyen de algún modo las decisiones de inversión. Otros factores específicos al país, como la disponibilidad de capital humano, las aduanas y la infraestructura no parecen influir en la práctica las decisiones de IED; no obstante, hay que tener en cuenta que las variables instrumentales seleccionadas como referencia para tratar de medir estas dimensiones, identificadas en la literatura teórica, pueden no ser las más adecuadas. En cambio, ciertas características específicas de la empresa inversora, como el hecho de contar con licencias tecnológicas, el porcentaje de insumo que se adquiere localmente una vez la filial está implantada, y el porcentaje de exportaciones (IED vertical)

decisions under uncertainty would be needed (to empirically test the theoretical constructs in Dixit, 1995; Pissarides, 2001).

- Third, related to the previous point, policy makers may want to improve institutions in a broader sense, as well as rules of the game, to increase foreign direct investment attraction. This can be done by strengthening the investment framework, to ensure equal treatment to foreign investor and reducing the scope for expropriation of assets. There seems to be some evidence that the nationalization of Repsol YPF oil company (previously owned by a Spanish multinational) in Argentina is deterring foreign investment in the energy sector. In addition, enforcing and maintaining law and order may send a positive signal to foreign investors, but it is not per se a sufficient requirement to appeal to foreign investors. Similarly, the ability of the executive to remain in office (government stability) seems to positively contribute to FDI attraction in Latin America. However, if there are substantial changes to the rules of the

sí que influyen de manera notable la elección entre JV y WOE. Por último, también concluimos de manera preliminar, y basándonos en una discusión meramente cualitativa, que los procesos de integración regional que conllevan reformas significativas en los países miembros (más allá de cambios en las preferencias comerciales), resultan a menudo en un incremento de la inversión extranjera directa.

5.5. Implicaciones para los formuladores de políticas públicas y empresarios internacionales

En base a estos resultados, sostenemos en esta tesis que los países en vías de desarrollo tienen a su alcance una serie de alternativas de reforma y herramientas de política que pueden usar para mejorar su atractivo de cara al

game or if the policies implemented are not always investor-friendly, as may be the case of Venezuela, this may not be sufficient to appeal the foreign investor. Finally, the percentage of foreign ownership in FDI subsidiaries seems to be negatively correlated to the prevalence of informal payments and discretionary court ruling in the country, as foreign entrepreneurs prefer to make smaller bets in these uncertain contexts; host countries may want to address these issues by improving institutional controls, in order to make sure the prospects of multinationals and international investors are not damaged.

- Fourth, trade policy and regional integration can be used as a tool to channel foreign direct investment inflows. However, not every Regional Integration Agreement (RTA) may help substantively appealing FDI. Policy-makers may want to sign RTAs that, beyond tariff modifications and trade preferences, encompass a wide set of reforms in some of the following areas: intellectual property rights, investment facilitation, rules of origin,

inversor extranjero.

- En primer lugar, pueden tratar de mejorar su gestión de la política macroeconómica y mitigar la volatilidad para así minimizar el riesgo percibido por el inversor. Por ejemplo, pueden comenzar reduciendo su deuda a corto plazo en moneda extranjera como porcentaje de reservas en el Banco Central, dado que altos ratios en esta dimensión pueden ser percibidos como una señal de que la economía puede llegar en cierto momento a enfrentarse a una crisis de deuda soberana. Esto implicaría probablemente una fuerte depreciación, lo que afectaría al valor de las inversiones llevadas a cabo por empresarios extranjeros; por esta razón, en países con altos niveles de deuda a corto plazo como porcentaje de reservas en moneda extranjera, los gestores de multinacionales pueden retrasar sus decisiones de inversión, e incluso podrían llegar a optar por implantar su filial en otro país.

infrastructure and connectivity, labor movement, etc. Even in those Free Trade Agreements that do not touch on these reforms, external tariff decreases are likely to contribute to increased trade flows and a greater degree of trade openness, thus indirectly helping attract foreign investors.

It may be argued that, by enhancing the legal framework for industrial property (and its effective enforcement), they will be ensuring foreign companies that their specific assets ownership will be respected when establishing a subsidiary in the country. This way, foreign investors would be more likely to rely on joint ventures, which could increase knowledge spillovers over local firms. Similarly, measures aimed at guaranteeing the quality and reliability local supplies (quality certificates, better supply contract enforcement) could help fostering backward linkages in the host economy. These measures may be the result of regional integration processes, as well as they may be part of country-specific reforms to improve the regulatory and

En lo que se refiere a la balanza de pagos, la relación positiva entre déficit por cuenta corriente e IED es obvia, si bien con esto no queremos decir que los países deben abogar por el deterioro de su saldo comercial, lo que podría conllevar depreciación, presiones inflacionarias e inestabilidad. En el otro extremo tenemos a los países que exportan commodities, que generalmente presentan un saldo positivo en la balanza comercial que acaba implicando una moneda más fuerte, lo que puede desalentar al inversor extranjero hasta cierto punto, dado que invertir en una moneda fuerte implica probablemente un desembolso inicial más alto que en países vecinos. En estas circunstancias, los formuladores de política pública necesitarían garantizar objetivos de política monetaria transparentes, por ejemplo recurriendo a un régimen de metas de inflación (si la divisa flota), o a una trayectoria de evolución del tipo de cambio predecible (régimenes de tipo de cambio intervenido o semiflexibles). De este modo se podría al menos ofrecer al inversor extranjero mayores garantías sobre

institutional framework for investment.

In addition, managers of foreign companies and multinationals willing to invest in emerging economies may find our results useful to orient its foreign entry mode choice. First, it seems that a joint venture is a more advantageous formula for foreign establishments selling to the local market (horizontal FDI), as counting with a local partner may help unlocking key distribution channels and reaching the targeted customers. On the other hand, companies that have decided to establish an export platform (vertical FDI) in the region may find more efficient to opt for a higher degree of control over the subsidiary, in order to more closely manage the production and international distribution process of the product they are going to export. Related to this is the (also strategic) decision of obtaining supplies for the production process in the host market or abroad, with the WOE as the preferred formula when the subsidiary relies to a greater extent on foreign inputs for the production process, in order to retain

la estabilidad macroeconómica, lo que reduciría el riesgo percibido.

- Segundo, y también relacionado con la necesidad de minimizar los riesgos de inversión, los estados en desarrollo pueden introducir regulación en ciertos mercados para así asumir un papel de asegurador en un contexto de costos de inversión cambiantes (debido a variabilidad en el tipo de cambio e inestabilidad institucional, entre otros factores). Por ejemplo, las limitaciones de los mercados de capital en los países Latinoamericanos puede incrementar el riesgo de entrada percibido por las multinacionales que tienen intención de invertir allí, dado que es improbable que puedan recurrir al mercado doméstico de bonos para financiar o expandir su filial. Además, altos costos de despido y limitaciones a la repatriación de beneficios pueden resultar en el retraso de decisiones de entrada (inversión) y salida (desinversión) en un mercado concreto. De acuerdo con Pissarides (2001), las rigideces introducidas en la toma de decisiones por altos costos de despido pueden solucionarse mediante

more control over the choice of the supplier. It is also worth noticing that, if the potential investor is holder of foreign technology licenses, opting for full participation in the subsidiary (WOE) may help preventing reverse engineering and surrendering strategic information to potential competitors. Interestingly, this is a finding that holds only in Latin America and the Caribbean, but not in the rest of the world, and may have to do with the greater degree of variability of property rights enforcement across the region. On the other hand, there is some evidence that firms counting with quality certificates are more inclined to opt for JV subsidiaries when entering other regions (not Latin America).

On a final note, it is worth mentioning that these findings have implications from a risk-management perspective, and risk-averse international investors would require guarantees to hedge from sovereign and political risks prior to making investment decisions. In this context, the role of international institutions such as the Multinational Investment Guarantee Agency appears

la introducción de un subsidio al desempleo, así como reduciendo los pagos de beneficios sociales por parte de agentes privados (empresarios, trabajadores). En este sentido, tanto las instituciones (normas y derechos) como los actores públicos (por ejemplo, organismos reguladores, agencias de inversión, etc.) tienen un papel importante a la hora de solucionar las imperfecciones de los mercados, así como de cara a reducir la incertidumbre; esto sirve para prevenir las rigideces (histéresis) en la toma de decisiones empresariales, al tiempo que se mantiene un marco de negocios flexible para atraer al inversor extranjero. Si bien en nuestro modelo de efectos fijos las relaciones no lineales no parecen jugar un papel significativo, sería conveniente investigar los efectos de histéresis sobre las decisiones de inversión en ambientes con incertidumbre, para así probar en mayor profundidad y de manera empírica los constructos teóricos de Dixit (1995) y Pissarides (2001).

- Tercero, y relacionado con el punto anterior, los formuladores de

as extremely relevant when helping maximizing investment to developing countries.

5.6. Conclusion and future research

In conclusion, in this thesis we have analyzed the determinants of foreign direct investment in developing countries from a fairly broad view, by presenting a multi-tier approach featuring complementary views on the topic (macroeconomic cross country analysis, microeconomic firm level analysis, and single country qualitative case study). For this purpose, we have drawn from existing literature, trying to empirically test well established theories. Beyond the contribution to the existing empirical literature, the ultimate objective has been to present policy makers and international entrepreneurs

política pública pueden tratar de mejorar las reglas del juego, así como las instituciones en un sentido más amplio, para incrementar la atracción de inversión extranjera directa. Esto se puede lograr a través del fortalecimiento del marco de inversión, para asegurar un trato no discriminatorio al empresario extranjero, a la vez que se reduce la casuística legal que permite la expropiación de activos. Por ejemplo, la nacionalización en 2012 de la petrolera YPF en Argentina (previamente en manos de la multinacional española Repsol) parece haber ahuyentado a potenciales inversores internacionales en el campo energético, y la empresa nacionalizada ha sufrido durante un tiempo riesgo de descapitalización. De igual modo, la habilidad del ejecutivo para permanecer en el poder (estabilidad gubernamental) parece contribuir de manera positiva a la atracción de inversión en Latinoamérica. Sin embargo, si se producen cambios substantivos o excesivamente frecuente en la normativa, o si las políticas públicas no son amigables al inversor extranjero, como puede ocurrir en el caso

with a series of pragmatic lessons and findings that would be applicable to their decision-making in the future.

At the same time, we acknowledge that this thesis has a series of limitations. While the concrete caveats of the different experiments are highlighted in each of the articles, it is worth mentioning again that the lack of a bilateral investment flows matrix in Latin America has prevented us from gaining a better understanding of FDI dynamics in the region. Also, in the context of Chapter 2, and even when we bring non-linearities into discussion, the macro-level dataset we count with is not sufficient to fully test the hysteresis under the uncertainty approach (Dixit, 1995; Pissarides, 2001). To thoroughly assess this framework, it would be interesting to carry out additional research exploring the exchange rate volatility-FDI decision relationships from a micro point of view using customized surveys for a controlled sample of multinationals investing in developing economies. Finally, it is also worth mentioning that

de Venezuela, la estabilidad del ejecutivo no es insuficiente para atraer IED. Por último, el porcentaje de participación extranjera en las filiales de IED parece estar negativamente correlacionado con la predominancia de pagos informales y arbitrariedad en los tribunales en el mercado de destino de la inversión, ya que los empresarios extranjeros prefieren “apostar menos” en estos contextos; los países en desarrollo pueden tratar de corregir estos problemas, mejorando los controles institucionales y eliminando incentivos a la informalidad, para no perjudicar las perspectivas de inversión.

- Cuarto, la política de comercio internacional y los procesos de integración regional pueden utilizarse como herramienta para canalizar los flujos de inversión extranjera directa. No obstante, hay que tener en cuenta que no todos los acuerdos de integración regional apelarán al inversor internacional de igual manera. De cara a atraer IED, los países pueden tratar de firmar acuerdos que, más allá de las modificaciones en aranceles y preferencias

some of the proxies and variables selected to test certain theoretical arguments may not be the most suitable, and that some authors have often criticized the reliability and comparability of institutional indexes.

Limitations notwithstanding, and taking into account that data sources on FDI flows are scanty if we compare with those on trade flows, we are confident that we have been able to, at least, signal the main determinants of FDI, and to make a pragmatic and policy-oriented contribution to the literature. The articles in this volume have attracted a fair amount of interest; chapter 2 has been published in the *European Journal of Political Economy*, and has informed another publication at Elcano Royal Institute; chapter 3 is under revision at the *Journal of World Business*; chapter 4 is an upcoming *World Bank Policy Research Working Paper*.

With this thesis as a departure point, and looking forward, a series of topics

comerciales, conlleven además una amplia serie de reformas en alguna de las áreas siguientes: derechos de propiedad intelectual, facilitación de la inversión, reglas de origen, infraestructura y conectividad, movilidad de la mano de obra, etc. Incluso en aquellos Acuerdos de Libre Comercio que no incluyan este tipo de reformas, es probable que las meras reducciones en arancel resulten en un mayor grado de apertura y flujo comercial, lo que indirectamente puede ayudar a atraer a los inversores extranjeros.

Podría argüirse que, mediante la mejora del marco legal sobre propiedad industrial (y su implementación efectiva), los formuladores de políticas públicas asegurarían a las empresas extranjeras que la propiedad de activos específicos sería respetada cuando establezcan una filial en su país. De esta manera, los inversores extranjeros serían más propensos a adoptar fórmulas de joint venture, lo que puede facilitar la transmisión de conocimiento a las empresas locales. Del mismo modo, medidas encaminadas a garantizar la calidad y la fiabilidad

appear as especially appealing for future research. First, it would be interesting to assess the role of export promotion and investment attraction agencies in developing economies as an FDI determinant, given that existing evidence is inconclusive. Second, it may be worth looking at the role of free trade zones and special economic zones in attracting foreign multinationals in the past, and how are they going to cope with the phasing out of export subsidies and other privileges agreed at the World Trade Organization (starting in 2015). Finally, we would like to assess to which extent multinationals settled in free trade zones do or do not bring backward and forward linkages with the rest of the host economy; this could be analyzed in a country such as the Dominican Republic, where exports from free trade zones represent more than half of total exports. This would ultimately imply leaving behind the determinants of FDI and the discussion about attracting foreign investment at any cost, to enter the FDI spillovers debate. It would be necessary to understand which kinds of FDI

de los proveedores locales a las filiales extranjeras (mediante la introducción de certificados de calidad y mejor ejecución de contratos de suministro, por ejemplo), lo que ayudaría a fomentar los encadenamientos hacia atrás en la economía destino de la inversión. Estas medidas pueden ser el resultado de procesos de integración regional, del mismo modo que pueden simplemente ser parte de reformas específicas de cada país, encaminadas a mejorar el marco regulatorio e institucional de la inversión.

Además, los directivos de empresas extranjeras y de multinacionales que se estén planteando invertir en economías emergentes pueden encontrar útiles los resultados de nuestro análisis a la hora de elegir su nivel de participación en la filial. Primero, aparentemente la joint venture es una fórmula más ventajosa para las filiales extranjeras que tengan previsto vender principalmente en el mercado local (IED horizontal), del mismo modo que contar con un socio local parece ayudar a desbloquear canales de distribución clave e identificar los

(horizontal, vertical, asset seeking), and under which sectors and conditions, are more likely to help enhancing economic growth in developing economies.



clientes principales. Por otra parte, las empresas que han decidido establecer una plataforma de exportación (IED vertical) en la región pueden considerar más eficiente optar por un mayor grado de control sobre la filial, para así gestionar de manera más directa los procesos de producción y distribución internacional del producto que van a exportar. Muy relacionado con este último punto está la decisión (también estratégica) de obtener suministros para el proceso productivo en el mercado destino de la inversión o en el extranjero; WOE será la fórmula de entrada preferida cuando la filial vaya a depender en mayor medida de insumos provenientes del extranjero, para de este modo mantener un mayor grado de control sobre la selección de los proveedores internacionales. También hay que tener en cuenta que, si el potencial inversor cuenta con licencias para la explotación de una tecnología extranjera, optar por una participación total en el capital de la filial (WOE) puede ayudar a prevenir la replicación tecnológica, así como exponer información estratégica a potenciales



competidores (por ejemplo, el socio de una joint venture). Cabe señalar que este hallazgo sólo aplica a Latinoamérica y el Caribe, pero no al resto del mundo, y puede tener que ver con el mayor grado de variabilidad existente en la región en lo que a derechos de propiedad se refiere. Por otra parte, hay cierta evidencia de que las multinacionales poseedoras de un certificado de calidad se inclinan por fórmulas de joint venture al invertir en otras regiones (pero no en Latinoamérica).

Como nota final, hay que mencionar que estos hallazgos tienen implicaciones desde un punto de vista de gestión de riesgos, y los inversores internacionales adversos al riesgo pueden requerir garantías para protegerse de riesgos políticos y soberanos antes de invertir en nuevos mercados. De ahí que el rol de las instituciones internacionales, como por ejemplo la Agencia Multinacional de Garantías a la Inversión (MIGA, por sus siglas en inglés), tenga un papel muy relevante de cara a ayudar a los países en desarrollo a maximizar su IED.



5.6. Conclusión, y vías de investigación para el futuro

En esta tesis hemos tratado analizado los factores determinantes de la inversión extranjera directa en países en desarrollo desde una perspectiva bastante amplia, presentando un enfoque a varios niveles que ofrece puntos de vista complementarios sobre el tema (análisis multi-país a nivel macroeconómico, análisis microeconómico a nivel de empresa, y un caso de estudio cualitativo). Para este propósito, hemos partido de la literatura existente, tratando de probar de manera empírica una serie de teorías bien establecidas. Además de contribuir a la literatura empírica existente, hemos querido ofrecer a formuladores de políticas públicas y a empresarios internacionales una serie de lecciones y hallazgos que en la práctica podrían aplicar a su toma de decisiones futuras.

Al mismo tiempo, cabe reconocer una serie de limitaciones de las que adolece esta tesis. Las limitaciones propias de los diferentes experimentos ya se destacan



en cada uno de los capítulos. Además, hay que señalar que la inexistencia de una matriz de flujos bilaterales de inversión en Latinoamérica nos ha impedido llegar a entender mejor la dinámica de la IED en la región. Asimismo, en el capítulo 2, y a pesar de que sí que hacemos un análisis en busca de relaciones no lineales, el set de datos a nivel macro no es suficiente para evaluar de manera íntegra el enfoque de histéresis en las decisiones de inversión bajo incertidumbre (Dixit, 1995; Pissarides, 2001). Para probar este marco teórico, sería interesante desarrollar investigación adicional que explore la relación entre la volatilidad del tipo de cambio y las decisiones de IED desde una perspectiva micro, usando cuestionarios específicamente diseñados para encuestar sobre este aspecto a las multinacionales invirtiendo en países en desarrollo. Finalmente, también cabe destacar que algunas de las variables seleccionadas para probar los argumentos teóricos establecidos por la literatura pueden no siempre ser las más adecuadas; por ejemplo, algunos autores han criticado la fiabilidad y comparabilidad de las



variables institucionales.

A pesar de estas limitaciones, y teniendo en cuenta que las fuentes de datos sobre IED son escasas si comparamos con aquellas sobre flujos comerciales, hemos sido capaces de identificar los principales determinantes de la IED, así como hacer una contribución a la literatura pragmática y orientada al diseño de políticas. Los artículos incluidos en este volumen han levantado notable interés; el capítulo 2 ha sido ya publicado en el *European Journal of Political Economy*, y ha informado otra publicación en el Real Instituto Elcano; el capítulo 3 está siendo sometido a revisión en el *Journal of World Business*; y un el capítulo 4 está en proceso de ser publicado como *World Bank Policy Research Working Paper*.

Con esta tesis como punto de partida, se nos ocurren una serie de temas relacionados que sería muy interesante investigar en un futuro. Primero, sería conveniente estudiar el papel de las agencias de promoción de exportaciones y



de atracción de inversión en los países en desarrollo, como factor determinante de la IED, ya que la evidencia empírica hasta ahora no ofrece resultados concluyentes. Segundo, cabría analizar el rol que las zonas francas especiales han tenido tradicionalmente en la atracción de inversión extranjera, y cómo van a adaptarse a la desaparición de los subsidios de exportación acordada por los miembros de la Organización Mundial del Comercio (y que se implementará a partir de 2015). Finalmente, nos gustaría indagar hasta qué punto las multinacionales establecidas en zonas francas establecen o no vínculos con el resto de la economía, dando o no lugar a encadenamientos hacia delante y hacia atrás; esta investigación podría llevarse a cabo para el caso de República Dominicana, en donde las exportaciones de zonas francas presentan más de la mitad del total, y son principalmente realizadas por empresas extranjeras. Esto implicaría ir más allá de la discusión sobre los factores determinantes de la IED y la atracción de inversión a cualquier precio, para entrar en el debate



sobre las externalidades derivadas de las IED. En este sentido, se hace necesario conseguir un mejor entendimiento de qué motivaciones de (horizontal, vertical, activos estratégicos), en qué sectores, y bajo qué condiciones, la inversión extranjera directa será más propensa a contribuir al crecimiento en las economías en desarrollo.



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